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SECTION M - CULTIVATED PLANTS

Book No. 2, 1959

Abstracts 6199 thru 6501

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SELECTED TRANSLATIONS OF
ABSTRACTS IN REFERATIVNYY ZHURNAL - BIOLOGIYA, No. 2, 1959

This report consists of complete translations of the Russian-language abstracts of articles, which were originally published in the Sino-Soviet bloc and in Yugoslavia.

The Soviet subject classification system used in the original Russian language abstracts has been followed in this publication.

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6199

Author : Birecka, H.; Tucholka, Z.; Lisiewicz, A.
Inst : Poznan Chemical Institute
Title : Studies on the Utilization of Fertilizers in
the Cultivation of Summer Grains in Rows

Orig Pub : Roczn. nauk rolnych, 1957, A76, No 1, 31-41

Abstract : The results of 11 field experiments, conducted
at the Chemical Institute in Poznan, concerning
the use of nitrogen and potassium fertilizers
together with granulated P_c in rows, are given
in this paper. Higher yields were obtained in
all cases when a full dose of N was applied in
the rows than when the same fertilizer was broad-
cast. An even higher increase in the yield was

Card 1/2

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6199

obtained by the simultaneous row application of
N and granulated P_c. Small doses of N applied
in rows with additional quantities broadcast to
make up a full dose give better results than
the application of the full dose by broadcast-
ing alone. -- A. F. Khlystova

Card 2/2

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6200

Author : Ruebenbauer, T.

Inst : Not given

Title : Selection of Grain Crops in Poland

Orig Pub : Hodowla rosl. aklimat. i nasienn., 1957, 1,
No 4, 461-475

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

Author : Khovanskiy, N. N.

Inst : L'gov exper.-selection station

Title : Biological Peculiarities of the Breed of Winter
Wheat Obtained From Seeds Taken From the Stalks
Formed in the Spring

Orig Pub : Byul. nauchno-tekhn. inform. L'govsk. opytno-
selekts. st., 1958, vyp 1, 53-56

Abstract : Data resulting from a study of the effect of
spring stalk-formation on the biological char-
acteristics of winter wheat is given. The
cessation of winter properties and the appear-
ance of summer forms can take place even in the
case of a single pre-winter sowing. The loss of

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

winter properties as a result of spring stalk-
formation can be accompanied by the appearance
of other varieties and even other species.

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6203

Author : Ignat'ev, B. K.

Inst : All-Union scient.-res. inst. of oleaceous and
ethero-oleaceous crops

Title : The Improvement of Conditions of Nutrition of
Winter Wheat, After Preceding Crops Which Were
Plowed

Orig Pub : V sb. n.-1. in-ta maslichn. i efiro-maslichn.
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",
1957, 218-221

Abstract : Fertilizers, even when they are introduced only
in small doses in order to help the growth of
winter wheat sowed after preceding crops which
had been plowed, increase its yield considerably.

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6203

Fertilizers, when they are introduced during pre-sowing cultivation, are highly beneficial to the yield. Granulated P_0 is particularly effective. Good results were obtained with an early top dressing by using phosphorous-nitrogen fertilizers. When there is a dearth of mineral fertilizers, they should be used first in the fields, where wheat follows corn. --
Ye. I. Saks

Card 2/2

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6204

Author : Roman, T.
Inst : Cracow Institute of Plant Selection and
Acclimatization
Title : The Evaluation of the Disposition of Wheat
Varieties to the Sprouting and Shedding of
Grain

Orig Pub : Hodowla rosl. aklimat. i nasienn., 1957, 1,
No 4, 541-558

Abstract : Data, collected at the Cracow Institute of
plant selection and acclimatization on the
determination of the tendency of winter wheat
varieties to sprouting and shedding of grain,
is given in this paper.

Card 1/1

BULGARIA / Cultivated Plants. Grains. Legumes.
Tropical Cereals.

M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6205

Author : Simeonov, Boris

Inst : Dobrudzha scient.-res. institute

Title : Pre-Sowing Preparation of the Soil for the
Cultivation of Winter Wheat After Late Pre-
ceding Crops

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzh. nauchno-
izsled. in-t, 1957, No 2, 3-6

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical
Cereals.

M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6206

Author : Nurmukhamedov, B.

Inst : Moscow Agricultural Academy im. K. A. Timiryazev

Title : Some Problems of Agricultural Engineering of
Winter Wheat in the Tambov Oblast'

Orig Pub : Sb. stud. nauchno-izsled. rabot Mosk. s.-kh.
akad. im K. A. Timiryazeva, 1957 (1958), vyp 7,
68-72

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6208
Author : Slabonski, A.
Inst : Not given
Title : Selection of Wheat With High Quality Grain
Orig Pub : Hodowla rosl., aklimat. i nasienn., 1957, 1,
No 4, 498-508
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6209
Author : Mikharev, V. A.
Inst : Chkalov Agricultural Institute
Title : The Sowing of Durum Wheat by Separate Seed
Fractions
Orig Pub : Zemledeliye, 1957, No 3, 80-82
Abstract : The results of the study at the Chkalov agricul-
tural institute (1954-1956) of the norms of
sowing of durum wheat (Melanopus 69 variety)
in relation to the size of seeds is given in
this paper. Excessive density of sowings
(6.5 millions for small seeds, 5.5 mil. for
medium and large sizes on 1 ha) causes the
plants to become depressed. This phenomenon

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6209

is accompanied by a sharp decrease on their yield. It is recommended to sow durum wheat separately, by fractions, with different norms of sowing. Data on the yield in various fractions and sowing norms, are given. In the central zone of the Chkalov oblast' it is recommended to sow durum wheat seeds when their absolute weight is under 25 g in quantities of 5.5 mln per 1 ha. When their weight is 30-32 g the quantity should be 4 - 4.5 mln; and when the weight is over 40 g, the quantity should not be under 3.5 mln grains per ha. -- G. N. Chernov

Card 2/2

BULGARIA / Cultivated Plants. Grains. Legumes M-1
Tropical Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6213

Author : Petrova, Mariya
Inst : Dobrudzha scient.-res. Institute
Title : Fertilization of Wheat

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzha
nauchno-izsled. in-t, 1957, No 2, 15-16

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Grains. Legumes. M-1
Tropical Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6214

Author : Gotsov, Kosta; Kazakova, Klera
Inst : Dobrudzha scient.-res. Institute
Title : Certain Problems in Wheat Sowing

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzh.
nauchno-izsled. in-t, No 2, 7-14

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6215

Author : Musiyko, Z.; Zueva, L.
Inst : Odessa Hydrometeorological Institute
Title : The Effect of Agrometeorological Conditions on
the Yield of Wheat Sowed During Various Periods

Orig Pub : Tr. Odessk. gidrometeorol. in-ta, 1958, vyp 16,
3-8

Abstract : Experiments were started in the fields of the
All-Union Selection-Genetic Institute in the
fall of 1955 to study the effect of the periods
of sowing of winter rye on the yield of the
green mass in the south of the Odessa oblast'.
The seeds of winter rye of the Odesskaya 1 variety
were, at intervals of 10 days, sown over the

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6215

black-fallows in seven different periods between August 20th and October 20th. The depth of sowing was 6 - 7 cm. The green mass was harvested twice; the first time was on May 15th for all periods of sowing. The second time, the plants were harvested during the phase of ear formation; the harvesting was carried out separately for plants belonging to different periods of sowing. The best period for winter rye sowing was between September 10th and 20th. The reasons for the lowering of the yield corresponding to other periods of sowing are analyzed. --
B. I. Kazachek

Card 2/2

GDR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

Author : Nover, Ilse; Mansfeld, Rudolf
Inst : Univ. of Halle and Berlin Academy of Sciences
Title : 1. The Resistance of Barley and Wheat of Gatersleben. 2. Study of the Resistance of Winter Barley to Erysiphe Graminis DC. f. sp. hordei Marchal.

Orig Pub : Kulturpflanze, 1956, 4, 341-349

Abstract : Vessels with plants of a variety which was receptive to the Erysiphe graminis, were inserted in the fall among the sowings of 225 studied varieties. An evaluation, according to the 4 point mark system, and a description of the character of chlorotic spots were carried

Card 1/3

GDR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

out in June of the next year. The more resistant varieties were contaminated separately with 7 strains among the groups A, C, D, B, which occur in the hothouse, and with strain F, which originated spontaneously from B. 88% of the barley plants were contaminated by strains A and C. Six varieties, belonging to the hexastichon var. hybnum morphological group displayed a high resistance against all fungus strains; six varieties were resistant against some of the strains. Varieties, which were mostly of recent origin (6%) varied with regard to their susceptibility to disease. These experiments were carried out at the Phytopathological Institute, University of Halle and at

Card 2/3

GDR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

the Research Institute of Cultivated Plants,
Berlin Academy of Sciences. -- B. E. Kravtsova

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6218

Author : Chervyakov, P. A.
Inst : Khar'kov Agricultural Institute
Title : The Effect of Presowing Treatment of Barley
Seeds on Their Productivity

Orig Pub : Zap. Khar'kovsk. s.-kh. in-ta, 1958, 15(52),
51-62

Abstract : The experiments took place under laboratory
and field conditions in 1954-1955. They in-
volved summer barley grown with two fertilizers
in the following variations: soaking of the
seeds in water at an initial temperature of 70°
during 24 hours with subsequent drying up to
115-118% of the initial weight (I); heating

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6218

in water at a constant temperature of 40° during
3 hours with drying as above (II); soaking
during 6 hours in water at a temperature of 18-
19° and heating during 1 hour at 40° (III);
heating of dry seeds during 1 hour at 40°
(IV); soaking in an infusion of branched wheat
during 24 hours with drying as above (V).
The first and the fifth variations were most
effective. The Bibliography contains 31
titles. -- B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6219

Author : Zelenskiy, S. S.
Inst : L'gov Experimental Station
Title : The Methods and Results of Oat Selection at
the L'gov Station

Orig Pub : Byul. nauchno-tekhn. inform. L'govsk. opytno-
selekts. st., 1958, vyp 1, 48-52

Abstract : Hybridization between local oat varieties belong-
ing to different "Mutik" and arisState forms was
the principal condition for the creation of
the initial selection material in the experiments
carried out at the L'gov Experimental Station.
Subsequent selection work was conducted by
using the method of individual multiple selection

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6219

among hybrid varieties. The best oat variety
which was developed in this manner is the
L'govskiy 1026. In 1957, the State commission
(Goskomissiya) recommended that it be grown
in Kurskaya, Lipetskaya, Voronezhskaya and
other oblasts. -- Ye. I. Saks

Card 2/2

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6220
Author : Zawadskiy, St.
Inst : Not given
Title : Preliminary Study of the Resistance of Oat
Varieties to the Swedish Frit Fly in the Fields
Orig Pub : Hodowla rosl. aklimat. i nasienn, 1957, 1,
No 56, 723-743

Abstract : Later sowings of oat undergo more damage than
the early ones. The Udych Zhulty, Przebuy II
and L. P. 214 varieties are resistant to the
Swedish fly. Proporchik, Mlokhovskiy, Seletskiy,
Teodoziya, Antonin'ski Byaly and Byaly Mazur -
are more susceptible to this pest.

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6221
Author : Yegikyan, A. A.; Karapetyan, I. O.
Inst : Armenian Scient.-Res. Agricultural Institute
Title : The Selection of Corn Parental-Pairs in Order
to Obtain Productive Hybrids
Orig Pub : Byul. nauchno-tekhn. inform. Arm. n.-i. in-t
zemledeliya, 1957, No 3, 3-5

Abstract : Data, collected at the Parakarsk Experimental
Base as a result of trials of varieties, var-
ietal strains, inter strain hybrids, hybrid
populations and inter varietal hybrids in
1955-1960, is given in this paper. All var-
ieties were distributed into 5 groups accord-
ing to the time of sowing. Dent corn varieties

Card 1/

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6221

are more productive than the flint corn. The yield of prospective varieties attained 23 - 35 cwt/ha. The hybrid populations, double inter-strain, and varietal strain hybrids produce the best yield of cobs and of green mass (30 - 49 cwt/ha); simple inter strain hybrids are less productive. The highest yield (28 - 47 cwt/ha) was produced by the following combinations: Flint white Gruzinskaya No 10 x Sterling, Flint yellow Tumanyan x Gorskaya yellow, Flint yellow Tumanyan x Voronezh 76, Grushevskaya x Early Gorets, Early Gorets x Minnesota 13 and Char'kov white dent x Sterling. These parental pairs are recommended to obtain inter varietal hybrid seeds. -- A. F. Khlystova

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6222

Author : Sheina, K. S.
Inst : Voroshilovgrad Agricultural Institute
Title : Preliminary Results of the Study of Hybrids
and of Corn Varieties

Orig Pub : Nauchn. zap. Voroshilovgradsk. s.-kh. in-ta,
1957, 4, No 2, 76-85

Abstract : 212 corn varieties of various origins, belonging to six subspecies were studied at the experimental farm of the Voroshilovgrad Agricultural Institute (low-bottom land of the Lugan' River) during 1955-1956. The description of conditions of growing of the collection, the detailed phenological observations, the yield of grain

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6222

and of green mass are given. Early varieties produced a lower yield than medium and late ripening during both years; the most productive varieties of the last two groups are indicated. There were no forms which were fully resistant to common smut in the studied collection; the early varieties were more susceptible to disease than the others. -- O. V. Yakushkina

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6223

Author : Dmitrieva, A. N.

Inst : Ukranian sci.-res. Institute of plant cult.
selec. and genet.

Title : The Biochemistry of the Grain of Corn Hybrids

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva,
selekts. i genet., 1958, No 2, 51-53

Abstract : Because of their content of fat and starch, hybrids occupy an intermediate position between the parental forms, approaching the highest yielding ones, or even surpassing them. But they occupy an intermediate position or even have a lower protein content in the majority of cases. However, in Fo, the content of protein

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6223

in the grain of the following hybrids was higher by 1.2-2.2% than in the parent which was richest in protein: Khar'kov white dent x Ivory king, Orange x Sterling, Ivory king x Rice. In creating hybrids, not only the yield and biological characteristics, but also the chemical productivity must be taken into consideration. -- M. V. Dranishnikov

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6230

Author : Molchadskiy, S. R.; Gorbulin, N. F.
Inst : Kuybyshev Agricultural Institute
Title : The Results of Experiments Concerning the
Agricultural Engineering and Testing of Corn
Varieties in 1955

Orig Pub : Izv. Kuybyshevsk. s.-kh. in-ta, 1957, 12, 29-36

Abstract : High yields of green stuff (209-234 cwt/ha) and low yields of grain (2.2-7.3 cwt/ha) were obtained with the following late ripening varieties: Krasnodarskaya 6, ordinary Krasnodarskaya of the Liming type, and white dent Osetinskaya. The Volzhskaya, Bessarabskaya, Rozenbergskaya, Bezenchukskaya hybrid, early

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6230

Gorets, white dent Khar'kov varieties produced a low yield of green mass (138 - 184 cwt/ha) but gave the highest yield of grain (12.3 - 15.9 cwt/ha). The best results in obtaining cobs without husks are gotten from the Rumanian yellow flint variety (28.8 cwt/ha), which is recommended by the institute for seed sowings. The optimal preceding crops for corn is "Rzhanishche" variety of rye which should be sown in the first ten days of May in the southern part of the oblast. It should be sown in the second ten days of May in the northern part of the oblast. -- N. G. Buyakovich

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

Author : Trusov, M. S.
Inst : Yaroslavl' Agricultural Institute
Title : Study of Methods Designed to Increase the Yield of Corn

Orig Pub : Tr. Yaroslavsk. s.-kh. in-ta, 1957, 4, 3-19

Abstract : The best sowing time in experiments carried out at the Yaroslavl' Agricultural Institute on medium argillaceous soil in 1956 was 25 - 30 May. The seeds were put in at a depth of 5 cm. The soil temperature at this depth was higher by 1.3 - 1.8° than at a depth of 8 cm. The sprouts came out a day earlier; the number of empty hills diminished from 6 to 5.6 when sowing

Card 1/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

took place on 25 May and from 3.5 to 1.3% - when it was done on 30 May. The green fodder yield increased by 20 - 8 cwt. The highest yields of Voronezh 76 cobs were obtained with 3 plants in a 60 x 60 hill. The yield was somewhat lower in a 70 x 70 cm hill. The Krasnodarsk 1/49 variety produced 623 cwt/ha of green stuff with 3 plants per 45 x 45 hill. The yield was 500, 2 cwt in a 60 x 60 hill. With 5 plants in a hill of 70 x 70, the yield was 447.1 cwt/ha. The yield of green mass in sowings of corn with peas was higher by 62.5% than in pure sowings. The increase in the percentage of digestible protein was 89.9%. The highest yield was obtained in squares of 45 x 45 with 3 plants

Card 2/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

of corn and 4 of peas (401.1 cwt/ha) as well as with 3 plants of corn and 2 of peas (386.9).
Bibl. 18 titles. -- M. V. Dranishnikov

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6232

Author : Ivanov, P. K.
Inst : Saratov Agricultural Institute
Title : Certain Problems of Agrotechny for Corn Grown
on Chestnut Soils

Orig Pub : Vestn. s.-kh. nauki, 1958, No 4, 55-59

Abstract : Experiments were carried out at the Krasnokutsk
Experimental Station, at the training experi-
mental farm of the Saratov Agricultural Insti-
tute, and at the Kolkhozes of the Saratov
oblast. The effects of the following methods
of plowing on the yield of corn was studied:
with a moldboard at a depth of 20-22 cm (I);
at a depth of 32 cm (II); at a depth of 20-22

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6232

cm with a deepening of 10 cm (III); and without
a moldboard at a depth of 35 - 40 cm (IV). The
effect of fertilization and irrigation with
various kinds of plowing was also studied.
Method I produced better results than method IV
on clogged soils. The results obtained with
methods I and IV were similar on pure soils.
Plowing according to method III produced worse
results than methods I and IV. The application
of fertilizers and irrigation in the case of
deep plowing increases the yield considerably.
-- B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6233

Author : Malygin, Yu. N.
Inst : Volokolamsk Experimental Station
Title : Times of Sowing and the Planting Depth of Corn
Seeds in the Non-Chernozem Belt

Orig Pub : Vestn. s.-kh. nauki, 1958, No 4, 49-54

Abstract : Laboratory-field experiments in sowing corn
for silage were carried out at various times
and at various depths on the Volokolamsk
experimental field at Shakhovskiy Rayon, Mos-
kovskaya Oblast' on medium-podzolic, coarsely
dust-like argillaceous soils in 1954-1955. It
is most profitable to sow corn for silage under
the above indicated conditions at the beginning

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6233

of June. The seeds should not be planted in
deeper than 4 cm, taking into consideration the
moisture of the soil. -- B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6234

Author : Lappo, A. I.; Sokolov, V. S.
Inst : Belorussia Agricultural Institute
Title : Depth of Cultivation Between Rows of Corn
Sowings in the Non-Chernozem Belt

Orig Pub : Vest. s.-kh. nauki, 1958, No 4, 45-48

Abstract : Experiments were carried out at the Belorussian
Agricultural Institute on sandy loam, medium
and heavy argillaceous loams in 1955-1957.
Minnesota 13 extra corn was sown according to
the square-pocket method (70 x 70 cm). Culti-
vation was carried out three times in two
directions. Deep mellowing on 10-12 cm during
the whole period gives negative results. The

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6234

best results were obtained with shallow culti-
vation on 4-6 cm. Hilling gave positive re-
sults only on light soils during a moist
summer; it is harmful on heavy soils. The main
reason for the lowering of yields in case of
cultivation between rows is the damage inflicted
to the roots. It is recommended to use shallow
cultivation which is sufficient for destroying
weeds and safe for corn roots. -- B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6236

Author : Largskiy, Yu. N.
Inst : Voronezh Agricultural Institute
Title : Application of Fertilizers According to the
Maltsev Method of Soil Cultivation for Corn
and Winter Wheat

Orig Pub : Zap. Voronezhsk. s.-kh. in-ta, 1957, 27, No 2,
349-355

Abstract : Experiments comparing the effect of fertiliza-
tion in conjunction with plowing without mold-
board on 40 cm and with moldboard on 32 cm on
leached out thick chernozem on Voronezh hybrid
corn and Stepnaya 135 winter wheat were carried
out at the field experimental station, Voronezh

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6236

Agricultural Institute. The supply of moisture
in the soil under the plants, the nutrient
supply, growth and development of plants, the
yield of grain all are higher in the case of
plowing without moldboard. The highest yield
of corn was obtained when organic-mineral
fertilizer + cluster sowing were used. The
best yield for winter wheat was obtained by
using P8K10 fertilizer and plowing in rows. --
B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6238

Author : Kuleshova, P. F.
Inst : Chelyabinsk Agricultural Experimental Station
Title : The Effect of the Density of Plants in Hills
on the Yield of Corn

Orig Pub : Byul. nauchno-tekhn. inform. Chelyab. gos.
s.-kh. opytn. st., 1956, No 1, 7-10

Abstract : Field experiments were carried out at the
Chelyabinsk experimental station in 1955-1957
in order to find out the optimal density of
corn (Krasnodarskaya 1/49 and Kazanskaya 128
varieties) in hills so as to obtain the highest
possible yield. The yield of green mass is a
direct function of the density of the plants in

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6238

the hill - it increases with the density of
sowings. It is necessary to leave 4 - 5 plants
in a hill, when corn is cultivated for green
fodder and silage, and no more than 2 - 3,
when it is cultivated for grain. -- E. I. Saks

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6240

Author : Lapta, I. A.
Inst : Khar'kov University
Title : The Yield of Corn When the Upper Part of the
Stalk is Removed in Various Vegetation Periods

Orig Pub : Uch. Zap. Khar'kovsk. un-t, 1956, 72, 87-90

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6241

Author : Shevchenko, N. Ya.
Inst : Odessa Hydrometeorological Institute
Title : Formation of Rice Varieties

Orig Pub : Tr. Odess. gidrometeorol. in-ta, 1958, vyp 16,
121-126

Abstract : Experiments, carried out in 1955-1957, on the
action of low temperatures on germinating seeds
of rice of White SKOMS, LKVR, Golden sprouts
and other varieties showed that the lowering
of temperature caused a change in coloration
of the rice seed vessel. It also increased its
glassiness and produced a change in its taste.
The action caused by cold was accompanied during

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6241

the experiments by a rigid water regime in the period of vegetation. It brought about the creation of more cold and drought resistant forms. The new Bezostyy 290 variety was the most cold resistant among them. -- Ye. I. Saks

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

Author : Smetanin, A. P.
Inst : Kuban' Rice Experimental Station
Title : Contribution to the Methods of Castration of Rice Flowers

Orig Pub : V sb.: Kratkiye itogi nauchno-izsled. raboty (Kubansk. ris. opyt. st.) za 1956 g., Krasnodar, "Sov. Kuban'", 1957, 99-103

Abstract : An experiment was carried out under field conditions with the Krasnodarskiy 424 and VROS 213 varieties in order to establish the causes of low germination of seeds when hybridization of rice is carried out. The flower scales were forced open by putting straws among them

Card 1/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

during the formation of panicles in the Krasnodarskiy 424 variety; spikelets opened before, during and after blooming. The flower scales on the VROS 213 variety were cut off, as in usual castration. When the flower is forced open, ovary growth stops early and only an insignificant part of the ovaries ripens. The spikelets of the lower part of the panicle suffer most from these unfavorable conditions. When castration is carried out by cutting off the flower scales, the destruction of ovaries goes on during the whole time of the development of the seed vessel. If the flower scales are cut before the beginning of the period of blooming, most ovaries are 1.5 mm large; the number of ovaries

Card 2/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

of 5 mm increased during blooming. If the flower scales are cut after blooming, the majority of ovaries achieve their development completely. The cutting of flower scales in rice spikelets, when preparing for castration, causes the ovary to dry up. Bibl. 12 titles.
-- T. I. Shapiro

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6243

Author : Krasnook, N. P.
Inst : Kuban' Experimental Station
Title : Gametogenesis Stage in Rice

Orig Pub : V sb.: Kratkiye itogi nauchno-izsled. raboty
(Kubansk. ris. opytn. st.) za 1956 g.
Krasnodar, "Sov. Kuban'", 1957, 87-91

Abstract : The results of vegetation experiments made with
late ripening Bol'shevik and early Bozu
varieties are given in this paper. The periods
when the plants pass through the gametogenesis
stage were established by how long rice is
allowed to remain without blue-violet rays. This
was achieved by putting the plants under a

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6243

tartrazine filter. The lack of blue-violet
rays was most effective on the Bol'shevik
variety during the first period of panicle
formation; on the early Bozu, the results were
most noticeable during the period of formation
of stamen tubercles. The gametogenesis stage
in early sowing starts after the luminous stage
and lasts till the formation of staminal
tubercles in the case of the Bol'shevik variety.
Late sowings prolong the course of gametogenesis
stage. The lack of blue-violet rays increases
the growth of plants in height. Bibl. 11
titles. -- T. I. Shapiro

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6248

Author : Velichko, E. B.

Inst : Not given

Title : Sowing of Rice and the Water Resources of
Kuban'

Orig Pub : S.-kh. Kubani, Inform. biol., 1957, No 2, 42-45

Abstract : The advantages of grass-rice crop rotations over rice-fallow and particularly over rice monoculture both in terms of yield and water outlay per 1 ha of the surface and 1 cwt of rice were taken into consideration. The urgent need for protein fodder was also considered by the author, who recommended to introduce sowing an eight crop rotation with following

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6248

alternation of crops in the Kuban' zone of rice: 1, 2 perennial herbs, 3, 4, 5 - rice, 6 - fallow, 7, 8 - rice. One half of the fallow field (in the spring) and then the other (in the summer) can be sown with a single cut mixture of grasses. The planning and semi-fallow cultivation can be carried out in the other half. -- M. V. Dranishnikov

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6249

Author : Kayumov, G.
Inst : Tadzhik Agricultural Institute
Title : The Effect of Cultivation Without Moldboard
on the Yield of Rice

Orig Pub : S.-kh. Tadzhikistana, 1957, No 9, 44-46

Abstract : The results of experiments conducted by the
Tadzhik Agricultural Institute in the Gissarskiy
Rayon, in 1956 in a watered sector, the purpose
of which was to compare the yield of rice
cultivated, according to Mal'tsev's method, with
the yield obtained by plowing with a moldboard
(control) are given in this paper. The follow-
ing advantages were observed in the case of the

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6249

first method; a greater density of plants
(294.3 against 268.4 per ha), greater height
117.9 and 108.8 cm, respectively, an increase
in yield of 4 cwt/ha, less weed choking.
Finally, the plants did not lodge. --
N. G. Buyakovich

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6251

Author : Dzhulay, A. P.
Inst : Kuban' Experimental Station
Title : The Effect of the Sowing Time on the Yield
of Rice

Orig Pub : S.-kh. Sev. Kavkaza, 1958, No 2, 47-51

Abstract : Experiments were carried out with Dubovskiy 129, VROS-213, Krasnodarskiy 424 varieties at the experimental base of the Kuban' rice experimental station in 1955-1957. The best sowing time for early ripening varieties is the second ten days of May; for medium ripening varieties, the optimum period is the first ten days of May. Sowings in June produce a very

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6251

low yield. Data on the yield of rice in relation to different sowing times of sowing are given. -- N. Ya. Vorontsova

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6252

Author : Bykov, B. V.
Inst : Uzbek Rice-Experimental Station
Title : Contribution to the Problem of the Time of
Fertilizer Application in Rice Cultivation

Orig Pub : Nauchno-tekhn. inform. Uzb. ris. opytn. st.,
1957, No 1, 14-18

Abstract : The best yield in field and vegetation experi-
ments (1954-1955) was obtained with UzROS-7-13,
UzROS-269, UzROS-5-A rice varieties, when the
fertilizer was applied before sowing and over
the sprouts. The methods and conditions of
carrying out the experiments and the data on the

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6252

effect of the time of fertilizer application
on the yield of grain are given.

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

Author : Shekun, G.
Inst : Acad. Sci. USSR, Moldavian Branch
Title : Cultivation Prospects and Some Agrotechnical
Problems with Sorghum in Moldavia

Orig Pub : Zemledeliye i zhivotnovodstvo Moldavii, 1958,
No 1, 5-12

Abstract : Data on the testing of sorghum in the variety
net for study in the Moldavian branch, Acad.
of Sci. USSR and at the field cultivation
station, Kishenev Agricultural Institute, is
given. Data on the results of cultivation of
sorghum in some kolkhozes and sovkhoses of
the republic are also given. The yielding

Card 1/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

capacity of sorghum for green fodder, silage
and grain in comparison with corn and Sudan
grass was studied at the experimental station
of field cultivation of the Kishenev Institute.
Chemical analyses of the green mass, silage
and grain were carried out. Time and methods
of sowing, norms of sowing, time of mowing
were studied. Mixed sowings of sorghum with
corn and leguminous crops, as well as stubble
sowings of sorghum after various crops were
tested. Appropriate recommendations are given
on all these problems and they permit to affirm
the expediency of introducing sorghum as a
staple crop in Moldavia. The expediency of
increasing the sowings of Chinese sugar cane

Card 2/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

and grain sorghum in the kolkhozes and sovkhoses
of the republic up to 15 - 20% in relation to
the sowing area of corn is recognized. --
N. N. Kuleshov

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6256

Author : Mironov, A. K.

Inst : Not given

Title : Experimental Cultivation of Sorghum in
Stavropol'ye

Orig Pub : Materialy po isuch. Stavropol'sk. kraya,
vyp 8, 1956, 43-59

Abstract : Data, supplied by variety trial plots,
scientific research, institutions, as well
as by kolkhozes and sovkhoses cultivating
sorghum on large areas, showed that in dry
regions, on salted soils, and in dry years, the
yield of sorghum exceeds that of corn. Of
particular significance was 1955 - a dry year,

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6256

when sorghum was the only crop, which produced grain, green mass and silage in some regions. Good results were obtained by cultivating sorghum in the Manych pastures, where yearly precipitation is 150-200 mm. The biology and the agrotechny pertaining to sorghum are described. The best varieties for Stavropol'ye are: Karlikovaya Dzhugara 185 [dwarf milo], Ranniy Yantar' Dnepropetrovskiy, Oranzhevoye 450, Krasnyy Yantar' 271/585, Stavropol'skiye 98. -- N. N. Kuleshov

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

Author : Sin'kovskiy, L. P.; Voznesenskiy, K. N.;
Yermolenko, M. A.

Inst : Animal Husbandry Institute, Tadzh SSR

Title : Sorghum on the Tadzhikistan Non-Irrigated Land

Orig Pub : S.-kh. Tadzhikistana, 1957, No 7, 24-28

Abstract : The Institute of Animal Husbandry, TadzhSSR, carried out experiments in 1952 and 1953 on the sowing of sorghum on unirrigated land in the driest regions of the republic. Early Gaolyan 178 variety produced 34.3 and 26.5 cwt/ha of hay. The vegetation period before ripening lasted only 66 days. Sowing was done on March 20th, sprouts appeared on April 2nd;

Card 1/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

seeds ripened on June 7th. Experiments conducted in subsequent years showed that in the case of fall plowing, when the sowing takes place at the end of March - beginning of April with a distance between rows of 60 cm, and when the norm of sowing is 6 - 7 kg/ha, the early sorghum varieties produce good crops of green mass and hay on these unirrigated plots. Late ripening varieties are not suitable there, because their racemes dry up and do not produce seeds. Corn cannot grow under these conditions (absence of moisture). Sorghum gives high yields of green mass and of silage, if the soil is watered. It gives an aftermath which is equal in productivity to the first mowing, it is mowed for

Card 2/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

the first time in the period when panicles appear. The first mowing (August 9th) on watered soil produced 406.7 cwt/ha of green mass in 1956 in the Gissar Valley, kolkhoz im. Stalin. After the second mowing October 9th the yield was 424.3 cwt/ha. When the soil is watered, it is possible to have two harvests during the vegetation period. A high sugar content in the stalks of sorghum makes it an excellent raw material for silo. It can be utilized as a component for ensilage for crops, which do not lend themselves readily to ensilage. -- N. N. Kuleshov

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6258

Author : Malinovskiy, G. A.
Inst : Chelyabinsk Agricultural-Experimental Station
Title : Experimental Cultivation of Sorghum

Orig Pub : Byul. nauchno-tekhn. inform. Chelyab. gos.
s.-kh. opytn. st., 1958, No 1, 41-43

Abstract : Data on comparative testing of Chinese sugar
cane (*Sorghum saccharatum*) and grain sorghum,
corn, Sudan grass and mohar as grain crops
are given. Chinese sugar cane can be recommend-
ed for production testing in Chelyabinskaya
Oblast' as a drought resistant crop, giving

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6258

comparatively high yields of green mass. --
E. I. Saks

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

Author : Kiyak, G. S.; Izdrik, V. M.

Inst : Acad. Sci. UkrSSR

Title : Methods of Buckwheat Sowing in the L'vovskaya Oblast'

Orig Pub : Pratsi in-ty agrobiol. AN UkrSSR, 1957, 7, 67-77

Abstract : Under the soil-climatic conditions of L'vovskaya Oblast' (experiments at the Agrobiological Institute, AS UkrSSR), buckwheat, when it is sown in continuous rows, develops faster and gives a yield of grain, which is greater by 1 - 3 cwt/ha than in wide-row planting. The best norm for sowing in continuous rows

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

is 80 kg/ha. In the case of wide-row sowing the best rate is 50 kg/ha.

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6261

Author : Gordiyenko, V. A.
Inst : Moldavian Sci.-Res. Agricultural Institute
Title : Production of Soy Sexual Hybrids with Bees

Orig Pub : Byul. nauchno-tekhn. inform. Mold. n.-i. in-ta
s.-kh., Kishenev, 1957, 56-58

Abstract : Bees in a netted cell were used by training them with sugar sirup steeped in the soy flowers for selection purposes in order to obtain sexual hybrids between Beletskaya 636 (Ucrainica En. variety) and Beletskaya 640 (Communis En. variety) soy. These experiments were carried out at the Moldavian Scientific-Research Institute of Agriculture in 1952.

Card 1/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6261

28.6 (Beletskaya 636) and 41.1% (Beletskaya 640)
hybrid plants were obtained in F₁. -- M. V.
Dranishnikov

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

Author : Sokol, P. F.

Inst : Not given

Title : Respiration Rate of Potato Tubers During Storage

Orig Pub : Agrobiologiya, 1958, No 2, 66-71

Abstract : The respiration rate of tubers during 6 months of storage was determined in a desiccator (Ella variety). The respiration of tubers in cellar at a temperature of 11.5 - 16° was least slowed down. One kg of tubers exhaled 2 - 3 mg of CO₂ in an hour. Exhalation of CO₂ in a laboratory at 15 - 18° increased up to 7 mg in December and 11 mg in March. The respiration of the tubers sown in the spring was more

Card 1/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

intensive in a refrigerator than in a cellar; the respiration of tubers sown during the summer was more intensive than in the laboratory. The exhalation of CO₂ at the end of the storage period reached 12.2 mg. Under the influence of high concentrations of CO₂, the eyes dried up and the lenticels became affected. The loss of weight was 7% in laboratories. In cellars, it was 4.7 among tubers sown in the spring and 2.5% among tubers sown in the summer. It was 0.7% in desiccators, when they were covered with earth, and 2.7% - in refrigerators. The loss of weight in experimental cells was 10% when the humidity of the air was 100%. The tubers contained 5% sugar in refrigerators, 1.2% in cellars,

Card 2/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

0.4 - 0.6% in laboratories. Greater losses of carbohydrates for the whole period of storage were observed in refrigerators and the laboratory than in cellars. The greatest losses of vitamin C were observed in refrigerators. --
M. P. Ovsyannikova

Card 3/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

Author : Palienko, T. S.; Merzhvinskaya, I. M.;
Korbut, G. A.

Inst : Not given

Title : The Effect of Various Methods of Applying
Manure and Mineral Fertilizers on the Yield
of Potatoes

Orig Pub : Udobreniye i urozhay, 1958, No 5, 19-21

Abstract : The application of $N_{30}P_{45}K_{60}$ kg/ha in holes during the course of potato sowing in experiments carried out in 1955-1956 increased the yield of tubers by 2.2 and 3.5 t/ha, respectively, in comparison with broadcasting the same fertilizers. The addition to $N_{30}P_{45}K_{60}$ kg/ha of 5 t/ha of manure during the same

Card 1/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

experiments and of 3 and 6 t/ha in the experiment conducted in 1954, when localized fertilization was practiced, had no effect on the yield. The addition of 20 t/ha of manure to the mixture $N_{30}P_{45}K_{60}$, placed by broadcasting increased the yield by 20%. The addition of 3 - 6 t/ha of manure had no effect on the yield. Hole placement of the VASKhNIL mixture (All-Union Agricultural Institute im. Lenin) during sowing (3 t of manure, 3 cwt of P_2O_5 and 3 cwt of lime) and of a mixture enriched with K_{60} produced an increase in the yield of potatoes of 2.9 and 11.9 cwt/ha, respectively (control: 158.6 cwt/ha). Mineral fertilizers somewhat diminished the starch content in the tubers. The experiments were carried out on

Card 2/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

leached-out chernozem containing little humus and turf-podzolic soils in Zhitomirskaya Oblast'. -- V. V. Prokoshev

Card 3/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6268

Author : Nevskiy, S. P.; Kon'kova, R. D.
Inst : Stavropol' Scient.-Res. Agricultural Institute
Title : Water Consumption and Spraying of Potatoes
Sown in the Spring in the Eastern Zone of the
Stavropol'skiy Kray

Orig Pub : Byul. nauchno-tekhn. inform. Stavropol'sk.
n.-i. in-ta s.-kh., 1957, No 3, 46-48

Abstract : Generalizations based on the results of
experiments carried out on chestnut soils
of the Stepnovskiy experimental field and of
the Kursk substation of the Stavropol' Experi-
mental Meliorative Station in 1947-1952 is
given in this paper. Data on water consumption
by potato plants in various growth phases is

Card 1/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6268

given. Recommendations on norms and times
of potato spraying are also given. -- V. S.
Shmal'ko

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6269

Author : Turans'kiy, V.

Inst : Not given

Title : The Effect of the Bed on the Yield and
Quality of Potatoes

Orig Pub : Byul. nauk.-tekhn. inform. Ternop. derzh.
sil's'kogospod. dosl. st., 1957, No 1, 14-17

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6270

Author : Gladkov, A.

Inst : Not given

Title : Spring Cultivation of the Soil for Potato
Cultures

Orig Pub : S.-kh. Bashkirii, 1958, No 4, 16-18

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6271
Author : Kubikova, R. I.
Inst : Not given
Title : The Results of Testing Some Potato Varieties
Orig Pub : S.-kh. Povolzh'ya, 1958, No 7, 60-61

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6273
Author : Ustimenko, G. V.
Inst : Not given
Title : Seed Cultivation of Jerusalem Artichokes in
the Central Rayons of the Non-Chernozem Belt

Orig Pub : Selektsiya i semenovodstvo, 1958, No 2, 30-35

Abstract : According to tests carried out during experiments conducted at the Timiryazev Agricultural Academy field station, the most productive varieties and forms of Jerusalem artichoke were: Belaya Urozhaynaya, Saratovskaya, Hybrid 120 and Vadim. Liquid manure spread over the sprouts in doses of 10 t/ha on a seed field used for three years increased the yield of tubers by 30%. It is preferable to

Card 1/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6273

harvest the tubers in order to get seeds in the spring, because in this case, their yield increases by 15 - 20%. The above-ground mass of the Jerusalem artichokes is cut on the seed plots before the start of frost. The Vadim and Saratovskaya varieties from the industrial point of view are the most interesting with regard to the central regions of the non-chernozem belt, because they produce comparatively high yields of green mass and tubers and they hibernate satisfactorily. The propagation of Jerusalem artichokes can also be effected by accelerated means. To obtain this, buds, weighing 2 - 3 g, are cut away from large tubers and planted in hothouses or in peat compost blocks. After 20 - 25 days, when the

Card 2/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6273

seedling attains 10 - 12 cm, it is planted in a field with a 60 x 60 cm bed. This method makes it possible to obtain 100 - 160 cwt/ha of tubers in one year. -- E. F. Linnik

Card 3/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6274

Author : Popovich, B.
Inst : Bryansk Selection Station
Title : Jerusalem Artichokes

Orig Pub : Nauka i peredov. opyt v s.-kh., 1958, No 3,
44-45

Abstract : Jerusalem artichokes (Rozovyy and Belyy Urozhaynyy varieties) were planted according to the square-pocket method (60 x 60 cm). There were two tubers in a hill. The experiment was conducted at the Bryansk Selection Station in 1957. 300 - 400 cwt/ha of green mass were obtained in the middle of September with a full mineral fertilization and liming. The yield was 200 - 270 cwt/ha at the end of

Card 1/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6274

September. The yield of the Rozovyy variety was higher by 30 - 33% than that of Belyy Urozhaynyy. It is recommended to utilize Jerusalem artichokes for hog pasture in the fall (after harvesting of the green mass) and in the spring.

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6275

Author : Simonyan, A.

Inst : Erevan' University

Title : Study of Vegetable Crops in Nor Bayazet

Orig Pub : Sb. stud. nauchn. tr. Erevansk. un-t, 1958,
No 8, 157-170

Abstract : The results of variety testing of tomatoes,
peppers and eggplants, carried out by the
department of Genetics, Yerevan' University,
showed the good productivity of some varieties
of these crops in the mountains.

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6277

Author : Kornygina, I. E.; Kutsenko, G. I.

Inst : L'vov Agricultural Institute

Title : Rational Utilization of Electric Light
Energy in the Cultivation of Vegetables on
Shielded Ground

Orig Pub : Sb. nauchn. rabot stud. L'vovsk. s.-kh. in-t,
1958, vyp 1, 83-90

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6279

Author : Gosev, P. P.

Inst : Not given

Title : Chinese Cabbage Culture

Orig Pub : Sad i ogorod. 1958, No 7, 19-21

Abstract : The practice of growing Chinese cabbage as a filler for tomatoes and cucumbers in hothouses was developed in Khibiny. The first crop of cabbage is carried out 22 - 25 days after sowing. The yield in a hothouse, when cabbage is grown as an independent crop, reached 4 - 6 kg/m²; in open ground the yield is 300 - 350 cwt/ha. In order to insure that seeds ripen uniformly, it is necessary to vernalize the seeds for 24 - 36 hours in a warm place and

Card 1/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6279

then to continue the process during 20 - 25 days at 0.5 - 1°. The yield of seeds reaches 10 cwt/ha.

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6280
Author : Kostanyan, B. A.
Inst : Agric. Institute, Arm SSR
Title : Culture of Tomatoes Issued from Hybrid Seeds
Orig Pub : Izv. AN ArmSSR, Biol. i s.-kh. n., 1958, 11,
No 3, 67-70

Abstract : Mayak x Krasnodarets (108% increment of yield),
Mayak x Krasnoznamenny (84%), Krasnyy Dar x
Mayak (38%), Margib x Krasnyy Dar, which had
been grafted (258%) and others were found to
be the best among 40 variants of intervariety
hybrids and grafts, tested at the Agricultural
Institute of Arm SSR. The best named of these
hybrids was also characterized by the high
quality of its fruits. In addition its fruits
appear early.

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6281
Author : Palilov, N. A.; D'yachenko, V. S.
Inst : Scient.-Res. Institute of Vegetable Crops
Title : Biological Reasons Why Onion Leaves Should
Be Cut at Harvest Time
Orig Pub : V.S., Sad i ogorod, 1958, No 7, 11-12

Abstract : The main losses of onions during storage are
caused by neck rot, according to the data
collected by the Scientific Research Institute
of Vegetable Crops. The causal agent of this
disease produces spores on the scales of the
bulb. The conidia of the fungus rest in the
soil, after the destruction of the bulb. The
fungus develops on leaves and penetrates into
the bulb when onions are dried in the field

Card 1/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6281

after harvesting. The cutting of leaves at harvest time and immediate drying of bulbs in desiccators guarantees a sharp decrease in the incidence of the disease.

Card 2/2

CHINA / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6287

Author : Hsü Hsiang-Hao

Inst : Not given

Title : Black Pepper - Aromatic Tropical Plant

Orig Pub : Sheng wu hsüeh t'ung pao, 1957, No 10, 8-11

Abstract : Black pepper (*Piper nigrum*) was brought into the island of Hainan from Viet Nam 20 years ago. The problems of cultivation of black pepper in China are examined.

Card 1/1

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6289

Author : Arbuzov, D. S.

Inst : Penza Agricultural Experimental Station

Title : Soaking of Seeds of Melon Fodder Crops Before
Sowing

Orig Pub : S.-kh. Povolozh'ya, 1957, No 12, 24-25

Abstract : The effect of soaking seeds before sowing on the yield of summer squash of the Saratovskiy 3 variety and of the Volga gray variety gourd was studied at the Penza Agricultural Experimental Station in 1955-1956. The yield increased by 21 cwt/ha, when the seeds of summer squash were treated with a 10% solution of sodium chloride. Soaking in a 10% soda solution caused a decrease in yield by 80.7 cwt/ha.

Card 1/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6289

Soaking of seeds of gourd in a 10% soda solution increased the yield by 28.3 cwt/ha. The yield decreased by 106.9 cwt/ha when seeds of gourd were treated with sodium chloride. --
E. A. Okorokova

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6290

Author : Zelenova, I. N.

Inst : Not given

Title : Additional Pollination of Gourd

Orig Pub : S.-kh. Povolozh'ya, 1958, No 7, 61-62

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

Author : Pavlov, K.; Nikolov, J.

Inst : Institute of Plant Cultivation of the Acad.
Sci. BPR

Title : Study of the Root System of Some Fodder Plants
in Bulgaria

Orig Pub : Z. Acker und Pflanzenbau, 1957, 104, No 2,
204-214

Abstract : This is a review of experiments on the study
of the effect of pure crops and cereal-leg-
uminous grass mixtures on the yield of above-
ground and root masses (down to a depth of
30 cm), on the improvement of the structure
and the increase of the fertility of the soil.

Card 1/3

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

Their effect as preceding crops for winter wheat was also studied in experiments conducted during the last 5 - 6 years, mainly at the Institute of Plant Cultivation of the Acad. of Sci. BPR and at agricultural high schools in Sofia and Plovdiv. The effect of fertilizers on the yield of above-ground and root masses of perennial grass mixtures was also studied. The following grasses were experimented on singly and in mixtures as annual winter crops: red and white clovers, esparsette, alfalfa, smooth brome, timothy, rye grass, red top, rye, winter vetch, fodder peas, wheat, fescue grass (meadow and red), dew grass. Experiments were conducted on vetch,

Card 2/3

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

oats, fodder pea and white vetch - as summer crops. -- M. S. Shalyt

Card 3/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

Author : Pakhomova, L. M.

Inst : Acad. Sci. USSR, Siberian Branch

Title : Characteristics of the Water Content in
Perennial Grasses

Orig Pub : Izv. Sibirsk. otd. AN USSR, 1958, No 1, 141-149

Abstract : Experiments were carried out at the botanical garden near Ufa with red clover, sickle alfalfa, sainfoin (Hungarian and Trans-Caucasian), white sweet clover (*Melilotus alba*) smooth and meadow brome, slender wheatgrass, *Roegneria fibrosa*, crested wheatgrass and *Agropyron umbricatum*. They were sowed without cover in the spring of 1953 and 1954. The content of water in leaves of perennial grasses

Card 1/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

diminished until the end of the vegetation period. This process is related to the aging of plasmatic colloids in the tissues. Leaves of perennial leguminous grasses contain more water than those of cereals. Leaves of wild perennial grasses contain less water than those of cultivated ones. The perennial grasses are disposed in the following order, according to the content of water in their leaves: among the leguminous - sweet clover, Hungarian, hybrid and Trans-Caucasian sainfoin, red clover, alfalfa blue hybrid, sickle alfalfa; among the cereals: crested wheatgrass and *Agropyron umbricatum*, smooth brome, *Roegneria fibrosa* and slender wheatgrass. The water retaining capacity diminished

Card 2/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

in the blooming phase in cereal perennial grasses and clover; it increased in sweet clover, sainfoin and alfalfa. The water retaining capacity of varieties and ecological types of red clover, hybrid and sickle alfalfa and smooth brome diminished with age. The author came to the conclusion that sweet clover, sainfoin, smooth brome and wheatgrass can be sown in dry steppe and forest-steppe regions of the republic; hybrid and sickle alfalfa can be sown in better irrigated and forest-steppe regions; red clover, slender wheatgrass and *Roegneria fibrosa* can be sown in properly irrigated forest steppe and forest regions. --
E. F. Linnik

Card 3/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6295

Author : Yakovenko, M. S.

Inst : Sumy Agricultural Experimental Station

Title : Mixed Sowings of Fodder Crops

Orig Pub : Kolgospnik Ukraini, 1958, No 3, 24-25

Abstract : The results of experiments carried out at the Sumy Agricultural-Experimental Station in 1957 on sowings of corn and sudan grass mixed with leguminous crops in order to obtain green fodder are given in this paper. The yield of the green mass was 325 cwt/ha including 5.6 cwt/ha of protein, when corn was sown according to the norm of 90 kg/ha. The yield was 258 and 8.3 cwt/ha, respectively, when 80 kg/ha corn and 60 kg/ha were sown. Data on the yields of green mass and protein, when other mixtures

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6295

were sown, are given. Recommendations concerning the sowing of mixture of crops, in order to obtain fodder with high protein contents, are given.

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6296

Author : Smirnova, R. S.

Inst : Central Experimental Station VIUA

Title : Experiments on Sowing Stubble in Moscow Oblast'

Orig Pub : Zhivotnovodstvo, 1957, No 7, 54-56

Abstract : The yield of fodder cabbage sown over stubble was 378.6; for leguminous-cereal mixture (winter rye, oats, winter and summer vetch) 166 and 151.2 cwt/ha for sunflowers in the sector of perennial grasses, plowed after the first harvest, in comparison with the yield of perennial grasses belonging to the second harvest (control). These experiments were carried out at the Central Experimental Station of the All-Union Fertilizer and Soil

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6296

Science Institute in the southern part of Moskovskaya Oblast'. Turnips and leguminous cereal mixtures sown over stubble produced a yield of 161 and 382 cwt/ha, respectively, on a sector, where a vetch-oat mixture, which had been sown early, was used for green fodder. White mustard and buckwheat harvested after rye in order to produce green fodder produced a yield of green mass of 200.8 and 340.4 cwt/ha and 5.1 and 17.0 cwt/ha of grain. The yield of mustard and of leguminous-cereal mixtures was respectively 176.2 and 42.2 cwt/ha, when they were sown after harvesting winter rye for grain. -- B. T. Konik

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6297

Author : Gadzhieva, Kh. A.
Inst : Dagestan Sci.-Res. Agricultural Institute
Title : The Effect of Fertilizers on the Yield of Crops Grown Over Stubble in Dagestan

Orig Pub : S.-kh. Sev. Kavkaza, 1958, No 7, 21-22

Abstract : The introduction of $N_{30}P_{30}K_{30}$, of $N_{60}P_{60}K_{60}$ and of manure (10 t/ha) increased the yield of the green mass of Sudan grass, Krasnodarskiy variety by 24 - 34%. For Minnesota - 13 extra corn the increase was 26 - 39%. The increase of dry mass in Sudan grass and corn was respectively, 30 - 44 and 25 - 54%. These experiments were carried out at the Dagestan Scientific-Research Agricultural Institute on

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6297

soils poor in Ca, P and humus and characterized
by their mechanical composition.

Card 2/2

GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6298

Author : Bartels, A.
Inst : Rostock Scient.-Res. Agricultural Institute
Title : The Effect of Soil Cultivation on the Growth
of Intermediate Crops

Orig Pub : Mitshurinbewegung, 1957, 6, No 10, 446-451

Abstract : The success of intermediate crops is determined
not only by weather conditions but by preceding
crops (time of sowing, yielding capacity,
selection of crops or mixtures) as well as by
soil cultivation, according to the data
collected by the Rostock (GDR) Scientific
Research Agricultural Institute. Examples of
various methods of soil cultivation for sun-
flower, peas, mixture of leguminous, corn and
others are given.

Card 1/1

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6299

Author : Andreyev, V.

Inst : Not given

Title : Contribution to the Problem of Distribution
of the Main Groups of Silage According to the
Zones of Azerbaydzhan

Orig Pub : Sots. s.-kh. Azerbaydzhana, 1958, No 4, 46-50

Abstract : No abstract given

Card 1/1

HUNGARY / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6304

Author : Weiser, Istvan

Inst : Institute of Animal Husbandry and Fodder
Extraction

Title : The Best Utilization of Alfalfa and Red Clover
for Fodder

Orig Pub : Magyar mezőgazd., 1957, 12, No 10, 12-13

Abstract : Alfalfa must be mowed at the beginning of
the blooming period. Red clover should be
mowed during the period of mass blooming,
according to the data collected by the
Institute of Animal Husbandry and Fodder
Extraction (Hungary). It is necessary to add
formic acid or molasses during the ensilage

Card 1/2

HUNGARY / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6304

of alfalfa and red clover, in order to improve lactic fermentation. -- F. Yu. Grabar'

Card 2/2

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6306

Author : Maslinkov, Mikhail
Inst : Agricultural Institute "Kolarov" Plovdiv
Title : Some Problems of Alfalfa Seed Cultivation

Orig Pub : Selskostop. mis"1, 1958, No 2, 119-126

Abstract : Alfalfa cultivation practices for the purpose of producing seeds, which are based on data collected at the Agricultural Institute "V. Kolarov" in Plovdiv (Bulgaria), are given in this paper. Data, collected at the Institutes "Maritsa" and "V. Kolarov" on the yield of alfalfa seeds harvested after mowing at various times and with the help of various fertilization methods are also given.

Card 1/2

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6306

3.2 cwt/ha of seeds were obtained on the experimental field of the "Maritsa" Institute in 1955-1956, when the harvest took place after the second mowing in comparison with an average yield of 0.4 cwt/ha for the country in 1951-1956.

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6307

Author : Mironenko, A. V.; Kazanovich, Ya. N.
Inst : Biological Institute Bielorr. Acad. of Sciences
Title : Contribution to the Problem of the Characteristics of Protein Metabolism in the Process of the Growth and Development of Lupine

Orig Pub : Byul. In-ta Biol. AN BSSR, 1956 (1957), vyp 2, 157-160

Abstract : Research, conducted at the Institute of Biology, Bielorr. Acad. of Sciences shows that the percentage of N in all protein fractions diminishes gradually in leaves of low alkaloid lupine (No 88 variety) during the process of vegetation. At the same time, the percentage of general and albuminous N in the high

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6307

alkaloid lupine (No 484 variety) did not vary perceptibly. Salt soluble fractions of N prevail in the albumin of seeds of low alkaloid lupine. The prevailing fraction in the high alkaloid variety is water soluble. When lupine is affected by verticillium disease, the content of general and of protein N, in particular, in the plant diminishes and the percentage of non-protein N increases. --
N. N. Sokolov

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops.M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6308

Author : Volynskaya, U. M.
Inst : Ukrainian Agricultural Academy
Title : The Effect of Some Forms of Potassium Fertilizers on the Yield of Grain and on the Quality of Fodder Lupine

Orig Pub : Udobreniye 1 urozhay, 1958, No 4, 10-12

Abstract : Varieties of potassium fertilizers increased the yield of grain of fodder lupine by 20 - 30% on the average. The yield was 11.3 cwt/ha with phosphorous fertilizers, according to the experiments carried out at the Ukrainian Agricultural Academy. K_c , kalimag and the combination of half doses of K_x and K_c contributed to the accumulation of a great

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6308

Author

quantity of protein and fat in the grain and hay. Together, they diminished the content of alkaloids more than any other variety of fertilizers. K_x, kalimag and kainite contributed to the accumulation of ashes in hay more than anything else. -- V. V. Prokoshev

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

Author : Lyapin, G. S.

Inst : Not given

Title : Increased Utilization of Potassium Fertilizers Under Lupine

Orig Pub : Zemledeliye, 1958, No 3, 17-19

Abstract : This is a generalization based on data accumulated over a period of 40 years on the effectiveness of potassium fertilizers on annual lupine in various zones of the USSR. In almost all the experiments, potassium fertilizers increased the yield of grain of lupine by 2 - 4 cwt/ha or more. The author relates the effective action of single potassium fertilization on lupine to the

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

reduction of the vegetation period which it causes, the increase in activity of tuber bacteria and increased resistance to unfavorable weather conditions. At the same time it is noted, that K increases the content of albumin in the seeds of lupine as well as the yield of subsequent crops. By using experimental data the author determined that 1 kg/ha of the active substance in potassium fertilizers can produce 6 kg of lupine seeds and 165 kg of green mass. -- V. V. Prokoshev

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

Author : Grebennikova, L. P.
Inst : Zhitomir Agricultural Institute
Title : The Effect of the Time of Top Dressing on the Yield of Seeds of Fodder Lupine

Orig Pub : Byul. sil'skogospod. inform. Zhitomir. obl. vig. t-va dlya poshir. polit. ta nauk. znan'. 1957, No 4, 79-80

Abstract : The experiment was carried out at the training-experimental farm Osniki of the Zhitomir Agricultural Institute on turf-podzolic sandy loam in 1955-1956. The sowing was effected in three lined rows at intervals of 13 - 15 cm between lines and 45 cm between rows. Oats was the preceding crop. Phosphorite

Card 1/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

fertilizer (30 kg P_2O_5), P_8 (30 kg P_2O_5) and K_k (45 kg K_2O) were introduced at the time of fall plowing. P_8 (30 kg P_2O_5) and K_k (30 kg K_2O) were used as top dressing. The yield of seeds was 14 cwt/ha and the pure weight of seeds was 140 g when the top dressing was introduced during the phase when 2 - 3 leaves have appeared and when the formation of vegetative cone takes place. The yield and the pure weight of seeds were respectively 18.5 cwt/ha and 140 g, when the top dressing was introduced at the beginning of the period of differentiation of the vegetative cone and the first generative tubercles are formed. Top dressing during the budding phase produced respectively 15.4 and 149; in the blooming

Card 2/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

phase, the yield was 14.7 and 160. The yield in the control, without top dressing was 10.5 cwt/ha and the pure weight of the seeds was 130 g. The second variant of the experiment must be considered as the best time for applying top dressing. -- E. M. Tsvetayeva

Card 3/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6311

Author : Fridental', S. M.

Inst : Ukr. Scient.-Res. Inst. of Plant Cultiv.
Select. and Genetics

Title : The Selection of Common Vetch

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva,
selekto. i genet., 1958, No 2, 17-18

Abstract : Different forms and varieties of peas were studied at the institute in 1955-1956 in order to select early ripening fodder varieties with fine seeds. The weight of 1000 seeds of various varieties of vetch in the institute's collection fluctuated between 100 and 448 g during 1956. Vetch of the Khar'kovskiy Bl variety is ready for mowing 58 - 70 days after

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6311

sprouting; its height reaches 1.5 - 2 m. The Khar'kovskiy 131 variety was grown at the Khar'kov Selection Station during 1955. It was a favorable year for late ripening varieties. When mixed with oats it produced 309 cwt/ha of green mass; the yield was 370 cwt/ha when it was sown alone. The yield of grain reached 42.5 cwt/ha during the years when there was sufficient precipitation. The coefficient of propagation of seeds was 85, when sowing was done in broad rows (39 cm); it was 64 when the distance between rows was 26 cm wide. -- E. A. Okorokova

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6312

Author : Nekrasova, L. F.

Inst : Ukrainian Scient.-Res. Institute of Irrigated
Agriculture

Title : Common Vetch in Arid Steppes

Orig Pub : Kolgospnik Ukraini, 1958, No 3, 18

Abstract : Data, compiled by the Ukrainian Sci.-Res.
Institute of Irrigated Agriculture on the
yielding capacity of vetch varieties cultivated
for green mass in the Southern Ukraine during
1957, is given in this paper. Of all tested
varieties, the greatest yield of green mass -
195 cwt/ha (42.9 cwt/ha of hay) - was produced
by the Uladovskiy 387 variety. Recommendations
on cultivation of vetch for hay are given.

Card 1/1

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6313

Author : Bolonkina, K.

Inst : All-Union Institute of Fodders

Title : The Field Pea as a Valuable Crop in the
Northern Districts

Orig Pub : Nauka i peredov. opyt v s.-kh., 1958, No 3,
42-43

Abstract : The field pea of the Alexandrovskaya 231
variety mixed with oats and white mustard in
various proportions was sown in the All-Union
Institute of Fodders in 1956-1957. The yield
of field peas was higher when it was sown
alone, but the plants lodged and this made
mechanized harvesting difficult. A yield of
peas of 33 cwt/ha (including 15 cwt of field

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6313

pea) and 40 cwt/ha of straw was obtained in 1957, when a mixture of 90 kg/ha of peas and 133 kg of oats was sown. The norm of sowing of 70 kg/ha of field pea and 150 kg/ha of oats was found to be best at the Ust'-Kulomskiy variety testing section (KomiASSR). Good results were obtained by sowing 146 kg/ha of field pea and 9 - 12 kg of mustard in order to obtain grain. The grass did not lodge, the yield of grain of field peas was 14.4. For mustard the yield was 2.7 - 3.6 cwt/ha. The highest and the most stable yields are produced with the Alexandrovskaya 231, Falenskaya 42 and Spartanets field pea varieties. -- Ye. A. Okorokova

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6316

Author : Kim Don Be
Inst : Moscow University
Title : Foxtail Millet in Relation to the Reaction of the Medium

Orig Pub : Vestn. Mosk. un-ta, Ser. biol. pochvoved., geol., geogr., 1957, No 2, 111-117

Abstract : Vegetation experiments were conducted in sandy crops with various medium reactions: weakly alkaline medium (pH 7.5), neutral (pH 6.5), weakly acid (pH 5.5), strongly acid (pH 4.5). These experiments were conducted by the Department of Agricultural Chemistry of Moscow State University in 1954 and 1955. The reaction of the medium was established every other day

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6316

during the whole vegetation period by adding H_2SO_4 and NaOH in drip pans. Foxtail millet had the greatest sensitivity to the acid reaction in the initial period after sprouting (~30 days). The germination with a neutral reaction was 65%; the number of lost plants was 0. At the same time the results were, respectively, 55 and 22% with an acid reaction. Weakly acid reactions are as favorable to plants as neutral ones. Weakly alkaline reaction had an unfavorable influence only in the initial period. The acid reaction caused a disturbance in the carbohydrate and protein metabolism; it brought about an accumulation of non protein N in foxtail millet; the content of Ca diminished whereas the content of P and K increased. --
O. V. Yakushkina

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

Author : Goncharov, P. L.
Inst : Not given
Title : Agrobiological Peculiarities of Mohar and Foxtail Millet in Omskaya Oblast'

Orig Pub : Zemledeliye, 1957, No 3, 30-34

Abstract : Experiments on the cultivation of mohar and foxtail millet show that they are capable of giving high yields of hay and seeds even in dry years. In addition, they withstand spring frosts well and suffer considerably from fall frost. The above surface part of the plants perished totally as a result of fall frost during 1955 (-1.7°). The seeds can keep their germination capacity rather well if they are

Card 1/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

stored, even for a long time, in a dry and aerated space. MS-1, Barkhatnyy 83, Krasnokutskiy 461, Karagandinskiy 242 are the best mohar varieties for the Omskaya Oblast'; Nemchinovskaya 6 and Sibirskaya 56 are the best foxtail millet varieties. Omskiy 10 mohar variety and Novosibirskaya 1 - foxtail millet varieties are of interest to the Northern regions. In the experiments conducted at the Siberian Scientific Research Agricultural Institute on the study of the time of sowing the highest yield of hay were obtained when the sowing took place during the third ten day period in May. The action of MCPA herbicide was studied on mohar sowings. Treatment with 1150 g of the preparation per 1 ha in the

Card 2/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

tillering phase contributed to the elimination of thistle, orache, wild buckwheat, hemp nettle and amaranth. -- G. N. Chernov

Card 3/3

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6318

Author : Chumina, O. T.

Inst : Acad. Sci. Kaz SSR

Title : The Indicators of Water Supply in Annual
Fodder Crops in Connection with Their Development and the Conditions of Their Cultivation

Orig Pub : Izv. AN Kaz SSR, Ser. botan. i pochvoved.,
1958, vyp 1, 49-56

Abstract : The results of experiments with foxtail millet (Alma-Ata 396 variety), summer vetch (Bogoroditskaya 800) and oats (Zolotoy dozhd'), carried out by Academy of Sciences Kazakh SSR in Kaskelenskiy Rayon of Alma-Atinskaya Oblast' in 1954-1956, are given in this paper. The critical amounts of concentration of cell fluid (refractometer readings) for foxtail

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6318

millet at the beginning and at the end of shooting, at the beginning of ear formation, and during the grain ripening period were established. Data on the variation in the water supply of plants according to their phase of development and in relation to their conditions of growth are given. Bibl. 22 titles. -- V. S. Shmal'ko

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6319

Author : Gura, B.

Inst : Moscow Agricult. Inst. im. K. A. Timiryazev

Title : Contribution to the Problem of the Biology of
Blooming of Foxtail Millet in Odesskaya Oblast'

Orig Pub : Sb. Stud. Nauchno-Issled. Rabot Mosk. s.-kh.
akad. im. K. A. Timiryazev, 1957 (1958), vyp 7,
35-40

Abstract : It was established at the Selection Genetic
Institute in 1955 that the maximum intensity
of blooming of foxtail millet is observed when
the relative humidity of the air remained under
70% and the temperature was 16 - 18°. The
blooming intensity diminishes at 20°. The
foxtail millet flowers stayed open for 1 - 4

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6319

hours, depending on exterior conditions.
The duration of blooming is 15 - 16 days.

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6320

Author : Bogdan, A. I.

Inst : Ukr. Scient.-Res. Inst. of Plant Cultiv.,
Selection and Genetics

Title : The Quality of Seeds of High Rye Grass De-
pending on the Time and Means of Harvesting

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva, selekts.
i genet., 1958, No 2, 30-32

Abstract : The experiments carried out in 1954-1955,
showed that the seeds harvested during the
period of seed vessel formation had a low rate
of germination (4-27%); germination reached
62 - 92% when the seeds were harvested during
the waxy stage, the percentage of germination
was 26 - 66% during the milky stage. A greater

Card 1/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6320

percentage of germination was observed in
seeds treated after drying in sheaves. Germi-
nation was much lower when the threshing was
done immediately after harvesting.

Card 2/2

GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6323

Author : Hollstein, H.

Inst : Jena Agricultural Scient.-Res. Institute

Title : Early Spring Experiments in Fields with Winter Oil Crops Damaged During Wintering

Orig Pub : Mitschurinbewegung, 1958, 7, No 5, 198-203

Abstract : It was established at the Jena Agricultural Scientific Research Institute that the plants continue to grow even when the rosette leaves die after hibernation but when the medulla and the roots in winter rape and winter cress are healthy and undamaged. A harvest can be obtained when proper care and fertilization are applied. In order to obtain a high yield of winter crops it is necessary to apply nitrogen

Card 1/2

GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6323

fertilizers in the early spring. The average yield of seeds in 6 experiments carried out in 1955 was 24.3 cwt/ha, when 60 kg/ha of the active agent of N was introduced, and 27.0 cwt/ha when 120 kg of N was introduced. It is also recommended to carry out fall and early spring harrowing of the sowings. The yield of seeds was on the average for three years 1954-1956 (9 experiments): without harrowing 18.3 cwt/ha, with early spring harrowing - 20.7 cwt/ha and with fall and early spring harrowing - 21.5 cwt/ha. --
E. M. Tsvetayeva

Card 2/2

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Author : Benc, Stanislav

Inst : Semchitsa Scient.-Research Institute

Title : The Selection of Mangel-Wurzel Varieties

Orig Pub : Za vysokom urodu, 1957, 5, No 4, 77-78

Abstract : Semchitsa (Czechoslovakia) Scientific Research Institute divides mangel-wurzel according to its productivity and starch content in 3 basic groups: coarse, semi-saccharine and saccharine. The coarse variety occupies by its yield of the fodder mass the first place, but it takes the last place by its starch content. Three [sic!] coarse mangel-wurzel varieties are cultivated: Kostelets, Barres, Yellow Unicum and Buchan

Card 1/3

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Yellow Valets. The two of the last named varieties exceed the half saccharine one by 10 - 20% in weight. Coarse mangel-wurzel grows almost at the surface of the earth; this circumstance facilitates the harvesting of the crop, but it deteriorates in storage. The yielding capacity of semi-saccharine mangel-wurzel is less than that of the coarse varieties. It contains more nutrition substances and produces more haulm. It requires a deeper soil cultivation. Red semi-saccharine mangel-wurzel contains the largest amount of starch. Saccharine mangel-wurzel has the greatest content of starch in comparison with other varieties, but the weight of its edible

Card 2/3

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

root is the smallest, although it produces more haulm and dry matter by 15 - 20%. The harvesting is difficult because the edible root lies deep under the surface of the earth.
-- E. A. Parshina

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous, Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6328

Author : Ryzhov, S. N.; Dorman, I. A.

Inst : Not given

Title : Production Capacity of Irrigated Soils of Middle Asia with Cotton as a Single Crop and in Crop Rotation

Orig Pub : Pochvovedeniye, 1956, No 9, 34-36

Abstract : The cultivation of cotton as a single crop with utilization of mineral fertilizer produced a yield of cotton wool of about 34 cwt/ha, and in crop rotations with alfalfa with the application of fertilizers the yield was 42 - 43 cwt/ha. These experiments took place on typical Sierozem soils at the Ak-Kavak Station.

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6328

Application of fertilizers in crop rotations with alfalfa on takyr-like soils at the Ioltan Station produced a yield of cotton wool of 26 - 43 cwt/ha. When cotton was sown as a single crop with the introduction of a fertilizer, the yield was 16 - 21 cwt/ha. The increment in the yield of cotton wool on dark Sierozem soils near the city of Chimkent was 1.3 - 1.6 cwt/ha in comparison with the case, when cotton was sown as a single crop. The content of humus, of N and of P in the soil increases appreciably, when crop rotation is applied. A tendency toward an increase in the cotton yield with every new rotation is observed. -- S. A. Nikitin

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

Author : Maksumov, A. N.
Inst : Acad. of Sci. Tadzh SSR
Title : An Experiment in Cotton Cultivation on Non-Irrigated Land with a Sufficient Amount of Precipitation in Tadzhikistan

Orig Pub : Izv. Otd. yestestv. nauk AN TadzhSSR, 1957,
No 21, 57-87

Abstract : Experiments on sowing cotton on non-irrigated land were carried out in the foothills of the Gissar Valley at the Tadzhik. State Selection Station in 1951-1955. For this period the yearly average of precipitation was 520-650 mm with 35.5 for the summer months. The average

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

of the daily temperature was 26.7°. The medium and the late ripening varieties such as 108-f, C-460, C-1225 and the fine fibered 5904-I, and not the early ripening ones, are the most adaptable varieties suited for cultivation on unirrigated plots which are provided with sufficient amount of rainfall. The vegetation period is shortened by 15 - 33 days (depending on varieties) as a result of cultivation of cotton on the unirrigated land. The height of the plant increases. The growing of the first sympodial branch starts 1 - 2 nodes lower, the accumulation of fruit organs increases as well as the number of surviving bolls. Instead of a continuous blooming, two sharply

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

delimited periods of blooming are observed - one, before the start of the drought (August) and the other during the late fall. The weight of the cotton wool, of the boll and the absolute weight of seeds gradually increase. As a result of acclimatization, the technological qualities of the fiber improve. --
B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6331

Author : Safarov, N. A.
Inst : Azerbaydzhan Agricultural Institute
Title : The Effect of Sowing Methods on Fruit Bearing
of Various Cotton Varieties

Orig Pub : Tr. Azerb. s.-kh. in-ta, 1957, 4, 53-66

Abstract : Experiments on the study of the fruit bearing
of cotton varieties 1298 and 2018/2 with 6
variants of plant disposition: 60 x 60 x 3,
60 x 45 x 3, 50 x 50 x 2, 45 x 45 x 1,
45 x 45 x 3, 70 x 15 x 1 were carried out at
the training farm (uchkhoz) of the Azerbaydzhan
Agricultural Institute. The 1298 variety had
a higher fruit bearing potential. The greatest

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6331

number of fruit-elements is formed in both
varieties with the square-pocket sowing.
Sowing, according to the scheme 50 x 50 x 2,
produces the least percentage of dropping of
bolls. The size of bolls varies greatly
at the 2018/2 variety depending on the disposi-
tion of plants, but no great difference is
noticed in the size of fruit organs in the 1298
variety with any disposition of plants. The
highest yield in both varieties was obtained
with the scheme 50 x 50 x 2. -- B. L. Klyachko-
Gurvich

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

Author : Kuliev, A. M.
Inst : Acad. of Sciences UzSSR
Title : Cross Pollination of Cotton of the Azerbaydzhan
Varieties

Orig Pub : V sb.: Ref. nauchno-izsled. rabot po
khlopkovodstvu. Tashkent, AN Uz SSR, 9-21

Abstract : Data on gradual decline of technological
qualities of the cotton variety 1298, region-
alized in the Azerbaydzhan SSR, are given.
The author explains it by the circumstance that
self pollination is the prevailing biological
particularity of the variety 1298. It is
recommended, when introducing new cotton

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

varieties, to take into account the degree of
cross pollination, which plays an important
role in the increase of productivity. The
study of new prospective for Azerbaydzhan
varieties (2421, 2018/2, C-1472, 2523) leads
to the conclusion that the majority of these,
along with self pollination for 2 - 3 hours
before the opening of flowers, are also cap-
able for cross pollination for 10 - 40%. It
is recommended for elite farms and seed culti-
vating kolkhozes, in order to obtain the most
viable plants, to utilize cotton in the middle
layers and the bolls of middle sympodia,
having superior qualities. It is necessary to
have one family of bees every 2 - 3 ha of

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

sowings in order to provide for a cross
pollination of cotton. -- B. L. Klyachko-
Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

Author : Khasanov, M.

Inst : Not given

Title : The Determination of the Time for Irrigating
Cotton Growing with Narrow Spaces Between Rows

Orig Pub : Sots. s.-kh. Uzbekistana, 1957, No 7, 10-16

Abstract : A field experiment was carried out at the
Ak-Kavak Agrotechnical Station of the All-
Union Cotton Scientific Research Institute
in order to compare the effectiveness of
various methods of determination of the time
of cotton irrigating. The following methods
were tested: according to the soil moisture
70 - 70 - 60% and 65 - 70 - 60%, according to

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

the exterior signs of the state of the plant and according to the sum of the medium daily temperatures during the period of blooming-fruit bearing. The spraying variant, according to the scheme 2-5-1, served as control. The experiment was carried out with cotton 108-f variety with the two following arrangements 60 x 50 x 3 (100,000 plants on 1 ha) and 50 x 50 x 3 (120,000 plants on 1 ha). It was established that the lowest average daily water rate and smaller irrigation norm were obtained with sprayings, according to the moisture of the soil and to the sum of the daily average temperatures. The number of sprayings was one less with these methods,

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

than with the others. Square-pocket plant distribution according to the scheme 50 x 50 x 3 produced a higher growth of the main stem in all variants of the experiment and a higher yield of cotton-wool than with the scheme 60 x 50 x 3. The highest yield was obtained with the irrigation method using external indicators and with soil moisture 70 - 70 - 60%, regardless of the arrangement.
-- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6334

Author : Malov, N. I.

Inst : Azerb. Agricultural Institute

Title : Bases of Sorting, Calibrating and Sowing Cotton
Seeds with a Given Number of Seeds Per Hill

Orig Pub : Tr. Azerb. s.-kh. in-ta, 1957, 4, 3-18

Abstract : The full effectiveness of sorting and calibration of seeds is reached only after their complete denudation. The most expedient method for that is the mechanized removal of the seed down with subsequent treatment with a strong solution of sulphuric acid. It is recommended to sort cotton seeds according to their specific weight and their size, and their calibration

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6334

according to the coordinates of thickness, width and length. The germination and the growth energy of seeds increase when the sowing is carried out by sorted and calibrated seeds. At the same time, the need of presowing treatment of the seeds with a fungicide to prevent gummosis disappears, the resistance of cotton bushes to wilt, to root rot and gummosis increases, the variety qualities improve, greater economy in the norms of sowing is reached and it becomes possible to sow denudated and assorted seeds by common grain and corn sowing machines SKg-6. -- B. L. Klyachko-Gurvich

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

Author : Naaber, L. Kh.
Inst : Acad. Sci. Uzb SSR
Title : Physiological Processes in Cotton Plants
During Defoliation

Orig Pub : V sb.: Materialy mezhresp. soveshchaniya po
koordinatsii nauchno-izsled. rabot po
khlopkovodstvu, 1957 g., Tashkent, AN Uzb SSR,
1957, 235-239

Abstract : Individual leaves were treated with chemical
preparations by immersion or vacuum-infiltra-
tion. The whole plant was also sprayed in
the case of the 108-f variety in the period
when 2 - 4 bolls open. Phenylthiourea and

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

sodium diethyldithiocarbamate (0.5% solutions),
dicarboxylic acids and their derivatives-
fumaric and maleic acids, hydrazide of maleic
acid, diethyl ethers of fumaric and maleic
acids (0.02% solutions) did not display de-
foliation capacities. Calcium cyanamide
(2 and 5%) and sodium cyanamide (0.5 and 1.0%),
methylenedotal (0.2%) as well as thiourea
(0.5%) acted on direct contact, but endotal
(0.2%) had an over-all effect. It acted on
all leaves situated above the ones which
were treated directly. The defoliation agents
caused dehydration of cells. This process
grows with the increase in concentration. The
greatest dehydration was caused by cyanamide

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

salts, magnesium chlorate and endotal. Methyl-
endotal stimulated absorption of CO₂ without
lowering the breathing intensity in view of
the activation of the oxydizing system; other
defoliation agents impede the photosynthesis
and breathing. An exception was found in
thiourea, which activated respiration through
the catalase system, after having inhibited
its first phase. -- B. E. Kravtsova

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

Author : Gyul'akhmedov, A. N.
Inst : Azerbaydzhan Scient.-Res. Institute of Cotton
Cultivation
Title : The Effect of Uranium on the Development and
Productivity of Cotton Plants

Orig Pub : Izv. AN AzerbSSR, 1957, No 9, 73-82

Abstract : Data is given on a study conducted at the
Azerbaydzhan Scientific Research Institute
of Cotton Cultivation on the introduction of
uranium nitrate in doses of 200, 500 and 1000
mg per vessel in vegetation experiments and
0.5 and 1.5 kg/ha in the fields during the
planting No 114 cotton variety. The process

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

of nitrification proceeded at a moderate rhythm and with increased intensity; the usual damping in certain vegetation periods of the cotton plant was avoided when 200 and 500 mg were introduced. However, the nitrification process was impeded when 1000 mg were introduced in a vessel. Uranium inhibits growth in the initial phase of development of the cotton plant, but it stimulates it during the fruit bearing and ripening phases, increasing the number of fruit buds by 14 - 17% in comparison with the control. It also increases the yield of cotton wool (in the field experiments) by 1.7 - 4.7 cwt/ha. Uranium prolongs the budding and blooming phases in the cotton

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

plant to some extent. The contents of proteins and of raw fat in seeds increases under the action of uranium. -- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6337

Author : Askochenskiy, A. N.

Inst : Not given

Title : Irrigation as a Basis of Development of Cotton
Cultivation

Orig Pub : Vestn. s.-kh. nauki, 1958, 99-107

Abstract : No abstract given

Card 1/1

KOREA/ Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6338

Author : Not given

Inst : Not given

Title : Cotton Plants

Orig Pub : Sondin Nonbo, 1958, No 1, 36-41

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339
Author : Rudnev, N. V.
Inst : Bashkir Agricultural Institute
Title : Contribution to the Problem of the Study
of Wild Hemp in Order to Improve Cultivated
Hemp on a Selective Basis
Orig Pub : Tr. Bashkisk. s.-kh. in-ta, 1957, 8, No 2,
67-74

Abstract : A study of the biology of the wild hemp showed
that it is substantially different from the
cultivated variety. The seeds of cultivated
hemp lose all their germinating capacity,
when they remain in the soil at a depth of
over 15 cm for two years. In the case of wild

Card 1/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339

hemp, this capacity is preserved by 26 - 48%
of the seeds. After harvesting, the
ripening period in the seeds of wild hemp is
much longer than in those of the cultivated
hemp. The germinating capacity of the seeds
of wild hemp continues to exist after 5 years
of storage. However, the seeds of cultivated
hemp lose this capacity after 3 years. The
stigma's period of receptivity to pollen
and the conservation of fecundity is almost
twice as long in the case of the wild hemp
as in the cultivated type. Wild hemp produces
10 - 20% more seeds and 10 - 13% more fiber
than the cultivated variety. It is more
resistant to hemp flea-beetles (Psylliodes

Card 2/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339

attenuata) and utilizes the supply of nutrient substances in the soil better. The hybrids of wild and cultivated hemp surpass the parental varieties with regard to the yield of seeds and of fiber. -- G. Yu. Dinesman

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6341

Author : Nevinnykh, V. A.

Inst : All-Union Scient.-Res. Institute of Rast
Crops

Title : Hybridization and Selection of Gambo Hemp

Orig Pub : Tr. Vses. n.-i. in-ta lub. kul'tur, 1957,
vyp 22, 179-205

Abstract : Cross breeding of forms of gambo hemp of varying origins and different biological and ecological features causes heterosis in the first and subsequent generations. The maximum manifestation of heterosis is observed in the cross breeding of very early ripening or early ripening forms with very late

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6341

ripening ones. Late ripening is a dominant feature in F₁. Early ripening gambo hemp varieties, which were characterized by the rapid initial growth of their plants, were separated from the hybrid material. This feature appeared to be recessive. A gambo hemp variety, Kubanskiy 333, which is highly productive and has a good yield of fiber, was obtained as a result of selection from a combination exhibiting heterosis. To eliminate the prickliness of gambo hemp, which is its dominant feature, hybridization with related species of the genus Hibiscus (furcaria section), which has almost no prickles, was carried out. -- S. Ya. Krayevoy

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6342

Author : Kondratenko, A.

Inst : Not given

Title : Mineral Fertilizers Used in the Cultivation
of Gambo Hemp

Orig Pub : S.-kh. Kirgizii, 1956, No 5, 22-24

Abstract : The yield of stems and fiber of gambo hemp in crop rotation decreases in proportion to how far it is from the alfalfa layer, even when the field is fertilized with P and K. The introduction of N increases the yield. The ratio N : P : K increases from 0.5 : 1 : 0.75 to 1 : 1 : 0.75 (with a dose of P₆₀) in proportion to how far gambo hemp is from the

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6342

alfalfa layer. The quality of fiber greatly
diminishes when the whole dose of N is intro-
duced into the top dressing. -- G. Yu. Dinesman

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6344

Author : Dembinski, Felicjan

Inst : Not given

Title : Experiments on Cultivation of Oleaceous Plants
(in Poland), Which Were Carried Out in 1950-1955

Orig Pub : Wydawn. własne. Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 5-28

Abstract : Old and new oleaceous crops, cultivated in
Poland were studied. It is best to sow
winter rape during the period between August
15th and 25th. Nitrogen fertilizers used
in the cultivation of winter rape should be
introduced on two separate occasions: in the
fall (the smaller dose) and in the spring

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6344

(the greatest portion of the required dose).
The yield of seeds increased with the increase
of the dose of N up to 175 kg/ha. Winter
gold-of-pleasure, which has a high winter
resistance, was selected for cultivation from
a number of weeds. The best yield and the
best quality of oil obtained from 16 summer
oleaceous plants came from sunflowers and
Ethiopian colewort (*Crambe abissinica*).
Perilla, rocketsalad and lallemantia were
found to be unfit for cultivation. Economical
methods of harvesting sunflower and castor
plants were developed. -- A. M. Smirnov

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6345

Author : Yaky, Miklos

Inst : Not given

Title : The Study of Seeds of Various Species of
Oleaceous and Other Plants

Orig Pub : Elelm ipar., 1958, 12, No 1-2, 25-28

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6346

Author : Pustovoyt, V. S.

Inst : All-Union Scient.-Res. Institute of Oleaceous
and Essential Oil Crops

Title : Selection and Seed Cultivation of Sunflowers

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. in-ta maslichn. i efiro-maslichn.
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",
1957, 9-20

Abstract : The sunflower varieties number 15659, 15636
and others selected by the Institute took
first place in the competitive variety trial
in 1956 (city of Krasnodar). Oiliness had been
calculated in absolutely dry seeds. The variety

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6346

number 16652 produced more oil than the best
competitive varieties during the preliminary
variety tests. Early ripening varieties with
a high degree of oiliness were sorted out in
the first year nursery. The oiliness calculated
on absolutely dry seeds reached 52 - 53.6%
in some high yielding numbers. In 1956
certain numbers of intervariety hybrids proved
themselves to be resistant to rust in
addition to being highly productive. --
O. P. Plyusnina

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6347

Author : Derishchev, M. G.

Inst : All-Union Scient. Res. Inst. of Oleaceous and
Essential Oil Crops

Title : Selection and Seed Cultivation of Sunflowers
in the Altay Kray

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i., in-ta maslichn. i efiro-maslichn.
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",
1957, 31-35

Abstract : The selection experiments with sunflowers
started in 1956 in the arid zone of the Altay
Kray (Kulundinskaya Steppe). The 8392 variety
of VNIIMK (All-Union Scient. Res. Inst. Oleac.

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6347

Crops) which took the first place because
of its yield of seeds (7.2 cwt/ha) and oil
(2.47 cwt/ha), showed itself as a good
prospect for the steppe part of Altay in
the competitive variety tests in 1956. Many
numbers with a shorter vegetation period
than the 8883 variety were found in the nursery
dedicated to the evaluation of the descendants
of the 8883 variety. Among them, No 291
which has a vegetation period, shorter by 12
days than the 8883 variety, surpassed the
latter by 25% in yield. -- O. P. Plyusnina

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6348
Author : Horodyski, Andrzej; Jablonski, Miron;
Kielczewski, Bogdan
Inst : Not given
Title : The Effect of the Sowing Density on the Yield
of Seeds and the Oiliness of Sunflowers with
Varying Degrees of Fertilization
Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 146-161
Abstract : Field experiments, carried out on an experi-
mental field in Przibrodzie in 1951-1953 with
the Bronovski Polosatyy (striped) variety
are described in this paper. The lowest level
of fertilization corresponded to P30K60N20 and

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6348

the highest was 50% greater for all 3 elements.
The width of the spaces between rows was 60
and 50 cm and the distance in rows was 20, 30
and 40 cm. The increase in doses of fertilizer
in comparison with the lowest amount did not
increase the productivity and oiliness of the
plant. The highest yield of seeds was obtained
when the plants were disposed according to
the following diagram: 60 x 40 and 60 x 30.
The yield was higher when the distance between
rows was 60 cm, than 50 cm. The highest
degree of oiliness was obtained when the
plants were disposed as follows: 60 x 30 cm.
-- A. M. Smirnov

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6349

Author : Dublyanskaya, N. F.

Inst : All-Union Scient. Res. Inst. of Oleaceous and
Essential Oil Crops

Title : Changes in the Contents and Composition of the
Non-Saponifying Part of Oils at the Time of
Ripening of Sunflower Seeds

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i. in-ta maslichn i efiromaslichn.
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",
1957, 129-132

Abstract : The relative contents of the total amount of
non-saponifying substances, including vitamin
E and carotinoids in oil fall in proportion

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6349

to the ripening of achenes of sunflower. The
relative content of sterols in oil is stable.
Individual sunflower varieties differ in the
content of non-saponifying substances, vitamin
E being one of them. -- S. S. Zamotailov

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6350
Author : Rushkovskiy, S. V.
Inst : All-Union Scient. Res. Inst. of Oleaceous
and Essential Oil Crops
Title : Biochemical Characteristics of Seeds in Very
Oily Subflower Varieties
Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i. in-ta maslichn. i efiro maslichn.
kul'tur za 1956 g. Krasnodar "Sov. Kuban'",
1957, 123-128

Abstract : Highly oily seeds differ from seeds with low
oil contents in the following manner: 1) their
albumin content in the nucleus is lower and
the hydrophilic nature of the nonfat part of

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6350

their nucleus and husk is higher; 2) the
nonfat part of their nucleus is more soluble
in water; 3) higher activity of some fer-
ments; the husk is richer in substances, pro-
viding for the development of microflora.
As a result of this, highly oily seeds possess
greater growth energy and spoil rapidly when
they are inadequately purified and dried. --
S. S. Zamotaylov

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6351

Author : Plyusnina, O. P.

Inst : All-Union Scient. Res. Inst. of Oleaceous
and Essential Oil Crops

Title : The Effect on the Sunflower Yield of Applying
Organic-Mineral Mixtures Simultaneously with
Sowing

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i. in-ta maslichn. i efiro maslichn.
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",
1957, 236-237

Abstract : The following fertilizer variants were tested:
1) 10 t/ha of manure introduced prior to fall
plowing, 2) P8 in the form of P_c, 3) 3 cwt/ha

Card 1/2

USSR / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6351

of humus and P8 in the form of P_c. The
fertilizers (with the exception of manure)
were introduced simultaneously with the sowing
of sunflower next to the seed hills. The
increments in the first three variants were
0.6 - 0.8 cwt/ha. It was 1.7 cwt/ha in the
last variant. -- S. S. Zamotaylov

Card 2/2

RUMANIA / Cultivated Plants. Commercial, Oleaceous, M-4
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6352

Author : Olteanu, Florica

Inst : Not given

Title : The Effect of Cultivation Practices on the
Yield of Sunflowers

Orig Pub : Probl. agric., 1958, 10, No 4, 80-86

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Commercial, Oleaceous, M-4
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6353

Author : Krynski, Jerzy

Inst : Not given

Title : Testing of Linseed Flax Varieties at the Main
Experimental Station on the Study of Flax and
Hemp in Poznan in 1947-1950

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 134-145

Abstract : Thirty-seven varieties and populations obtained
from Svalef (Sweden) were studied under field
conditions. These varieties originated from
22 countries of Europe, Asia, Africa and
America. The Polish varieties, LCSD 200 and
Roland, were also studied. The Golden,

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6353

Algerian and La Plata varieties were the oiliest ones. Vinestr and North American varieties produced a good yield of fiber. Bison, Golden and La Plata varieties represent valuable material for further selection, as they are resistant to fungus diseases. --
A. M. Smirnov

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6354

Author : Kiss, Ernő

Inst : Not given

Title : Data on the Analysis of the Yield of Flax

Orig Pub : Magyar tud. akad. Agrartud. oszt. közl.,
1957, 13, No 1-2, 129-145

Abstract : Studies conducted over a period of 3 years on the analysis of the crop of many varieties and types show that the yield of flax seeds is the result of the following four main components: 1) the absolute weight of seeds, 2) the number of seeds in a boll, 3) the number of bolls on the plant, 4) the density of plants. A formula for the determination of the yield

Card 1/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6354

in accordance with the above is given. As was shown by the studies, the first two components (1st and 2nd) are stable-hereditary, the last two (3rd and 4th) depend on external conditions. The number of bolls in a plant has the decisive influence on the yield of seeds. The yield of fiber can be calculated by using the method of microscopical study of anatomic structure of the plant or by dissection of the fibers on an individual stem. Formulas for determining the yield of fiber are also given. -- F. Yu. Grabar'

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6356

Author : Mohaczi, Tivadar

Inst : Not given

Title : Problems of Selection of Curly Flax

Orig Pub : Agrartudomány, 1958, 10, No 4, 23-25

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6357

Author : Priebe, Michal
Inst : Zelentsin Agricultural Experimental Station
Title : Sowing of Winter Rape in Protective Plant
Strips

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 42-50

Abstract : In 1952-1955, white mustard, pea, summer
vetch and alfalfa were sown in the fall
simultaneously with rape between rows in
field experiments at the Agricultural Experi-
mental Station in Zelentsin. The protective
plants in all the experiments did not diminish
the damage inflicted on the rape by unfavorable

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6357

winter conditions. They even lowered its
yield. -- A. M. Smirnov

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6358

Author : Witkowski, Karol Janush; Hoffmannova, Anna

Inst : Not given

Title : Comparative Study of 4 Winter Rape Varieties
with Splitting and Non-Splitting Legumes Under
Various Ecological and Geographical Conditions
Depending on the Time of Crop Harvesting

Orig Pub : Wydawn wlasne, Inst. uprawy, nawozenia i
gleboznawstwa, 1957, No 61, 86-94

Abstract : It was found during the field experiments,
which were carried out at agricultural experi-
mental stations, situated under various soil-
climatic conditions in 1952-1953, that when
the crop is harvested during the period of

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6358

overripening the yield diminishes due to
the dropping of seeds. Non-splitting
Gurchanskiy and Kastor varieties did not show
a higher resistance against splitting of
fruit in comparison with splitting varieties
(Slenskiy and Sobutkovskiy). -- A. M. Smirnov

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6359

Author : Horodyski, Andrzej

Inst : Not given

Title : Top Dressing Summer Rape with Nitrogen

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 127-133

Abstract : Following variants of introduction of N were
applied in field experiments (1953-1955):
1) 20 before sowing, 2) 40 before sowing,
3) 60 before sowing, 4) 20 before sowing + 40
before formation of buds, 5) 40 before sowing
+ 20 before formation of buds, 6) 20 before
sowing + 40 before blooming, 7) 40 before
sowing + 20 before blooming, 8) 20 before sowing

Card 1/2

POLAND / Cultivated Plants. Commercial, Oleaceous,
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6359

+ 20 before formation of buds + 20 before
blooming. The introduction of N was always
effected with a background of P₃₀ and K₆₀.
The division of the application of N in two
doses (before sowing and in the budding period)
had no effect on the yield. The division of
the dose in three equal parts (before sowing,
before budding and before blooming) produced
the greatest increase of yield. The fat
content of seeds diminished with the increase
in the dose of N. The greatest decrease
took place, when N was introduced before the
period of formation of buds or before blooming.
The doses and the time of introduction of N had
little effect on the absolute weight of seeds.

Card 2/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6360

Author : Witkowski, Karol Janusz

Inst : Not given

Title : Time of Summer Rape Sowing

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 102-108

Abstract : To determine the optimal time of sowing 29
field experiments were carried out in various
soil-climatic zones of Poland in 1946-1953.
The highest yields were obtained with sowings
which took place during the period between
April 5th and May 5th. A considerable decrease
of yield was observed in the case of later
sowings. The conclusion is drawn that the

Card 1/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6360

summer rape sowing should be effected in
each zone 2 weeks after the start of summer
grain crops sowings (when the duration of
grain crops sowings is not over 2 weeks). --
A. M. Smirnov

Card 2/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6361

Author : Hoffmanova, Anna

Inst : Not given

Title : The Effect of the Distance Among Rows and of the Various Norms of Sowing of Seeds on the Yield of Summer Rape with Various Fertilizer Doses

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i gleboznawstwa, 1957, No 61, 109-126

Abstract : It was established on the basis of 25 field experiments, which took place in 1946-1953, that increased fertilizer doses (50% above normal) heightened the yield of summer rape seeds. The increase in yield took place both with small and large fertilizer doses,

Card 1/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6361

when the distance between rows was 30 cm wide. Increasing the sowing norm from 6.9 up to 12 kg/ha did not produce any substantial increase in the yield of seeds. -- A. M. Smirnov

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6363

Author : Umen, N. F.

Inst : All-Union Scient.-Res. Inst. of Oleaceous
and Essential Oil Crops

Title : Sesame Selection

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i. in-ta maslichn. i efiromaslichn.
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",
1957, 70-74

Abstract : Higher productivity, early ripening and slow
opening of the bolls during ripening were
noticed in new sesame varieties numbers 412,
320 and 798 during the competitive variety
tests held in 1954-1956 (city of Krasnodar).
The yield of many new early ripening strains

Card 1/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6363

as recorded during the initial selection links
in 1956, was 8.2 - 9.5 cwt/ha as compared with
the yield of the control Kubanets variety
of 4.6 - 5.8 cwt/ha. The majority of inter-
specie hybrids had greater yields of seeds
than their parental species in 1956. --
O. P. Plyusnina

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6365

Author : Moshkin, V. A.

Inst : All-Union Scient.-Res. Inst. of Oleaceous
and Essential Oil Crops

Title : The Results of Experiments with the Castor
Plant VNIIMK-165 Variety

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote
Vses. n.-i. in-ta maslichn. i efiromaslichn.
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",
1957, 64-69

Abstract : Experiments on the amelioration of VNIIMK-165
variety castor made it possible to achieve a
more harmonious ripening, taller plants and
a decrease in the number of lateral racemes.
Experimental harvesting with combines, which

Card 1/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6365

was carried out at the Kolkhoz "Kuban'".
Ust-Labinskiy Rayon, Krasnodar Kray in 1955,
showed that VNIIMK-165 variety, which took
the first place with regard to the yield of
seeds among the three varieties (VNIIMK-165,
Early Hybrid and Sangvineus 401) was charac-
terized by its tall stems and by the prevalence
of monoracemous plants. The damage to the
seeds inflicted during the harvesting was the
smallest. This variety was recognized as the
most suitable for harvesting with combines. --
O. P. Plyusnina

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6366

Author : Kara, I. G.
Inst : Odessa Agricultural Institute
Title : Some Problems of Agricultural Engineering
of Castor Plant Cultivation in the Central
Steppe of the UkrSSR

Orig Pub : Avtoref. diss. S.-kh. n.-i. Odessk. s.-kh.
in-t, Dniepropetrovsk, 1958

Abstract : No abstract given

Card 1/1

YUGOSLAVIA / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6367

Author : Teshich, Branislava
Inst : Not given
Title : Blooming, Pollination and Ripening of Fruits
of Peanuts

Orig Pub : Pol'oprivreda, 1957, 5, No 7-8, 69-74

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6369

Author : Jablonski, Miron
Inst : Higher Agricultural School in Poznan
Title : The Effect of Sowing Time and Sowing Norm
on the Yield of Seeds and of Oil of the
Purple Common Perilla

Orig Pub : Wydawn. własne, Inst. uprawy, nawożenia i
gleboznawstwa, 1957, No 61, 162-176

Abstract : Field experiments, which took place at experimental stations of the higher agricultural school in Poznan during 1950-1954, as well as experiments in various soil-climatic zones of Poland showed that there was no substantial difference in yield and oiliness of seeds, when perilla was sowed during the period between

Card 1/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6369

April 15th and May 15th in doses of 5 - 15 kg/ha (at intervals between rows of 33 cm). It is preferable to carry out the sowing earlier (not later than the end of summer grain crop sowings) due to the length of the vegetation period. Perilla requires more daylight and is therefore an unreliable crop for Poland. Relatively more favorable conditions for its cultivation exist in the southwestern part of the country. -- A. M. Smirnov

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6371

Author : Momot, Ya. G.

Inst : Milyutin Selection Station

Title : Lallemantia on the Unirrigated Plots of
Uzbekistan

Orig Pub : V sb.: Maslichn. kul'tury v vost. r-nakh
USSR, Krasnodar, "Sov. Kuban'", 1956, 168-173

Abstract : Lallemantia is a promising crop for the
unirrigated plots Uzbekistan, which is semi-
irrigated. Higher yields (4.29 cwt/ha on
the average) were obtained in 1940-1944 at the
Milyutin Selection Station, when pre-winter
sowing was used. Plant diseases were observed
only on DSS-2 and DSS-4 varieties of the Rostov
selection in 1945. The best sowing method on

Card 1/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6371

pure soils is uniform sowing in rows with
doses of 10 kg/ha at a depth of 2 - 3 cm.
The sample of VIP k. 11 and the new 034 variety,
produced at the station, were among the best
sown in the spring with respect to yield
at the competitive variety tests in 1945 and
1947. No 2 variety of the Don selection was
the best among the pre-winter sowing
varieties. -- O. P. Plyusnina

Card 2/2

BULGARIA / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6374

Author : Mazhdrakov, N.; Popov, As.

Inst : Chemical Institute, Bulgarian Acad. of Science

Title : Field Experiments with Oenothera Lamarckina
Ser. and Chemical Analyses of Oil Obtained
From Its Seeds

Orig Pub : Izv. Khim. in-ta Bulg. AN, 1957, 5, 209-216

Abstract : Biennial plants produce 200 - 250 kg/ha of
seeds with 22 - 25% oil contents. Their oil
occupies an intermediate position between
siccative and semi-siccative oils and can be
utilized as a replacement for the preparation
of drying oil and varnishes.

Card 1/1

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6375

Author : Kozlowski, Jan

Inst : Not given

Title : Dynamics of Oil Accumulation in Rhizomes
of Acorus Calamus L. During the Vegetation
Period

Orig Pub : Acta polon. pharmac., 1958, 15, No 2, 93-98

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6378

Author : Gachinskiy, E.

Inst : Not given

Title : The Sugar Beet

Orig Pub : Nauka i peredovoy opyt v s.-kh., 1958, No 6,
73-76

Abstract : This is a brief outline of the development
of the sugar beet production in USSR from the
end of the 18th century up to the present.

Card 1/1

GDR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6379

Author : Hintzsche, E.; Oehme, H.

Inst : Not given

Title : The Increase of Sugar Beet Yields by Means
of Regulated Crop Rotations

Orig Pub : Mitschurinbewegung, 1958, 7, No 3, 101-107

Abstract : Bringing sugar beet sowing up to 240 t/ha
[sic!] and the productivity up to 320 cwt/ha
is one of the agricultural goals of the GDR.
Crop rotation is of particular importance to
the increase in productivity; it is of paramount
importance in resisting nematodes. The plants
which can attract nematodes must occupy a
minimum of area, no more than 20 - 25 of
the crop rotation area. At the same time, it

Card 1/2

GDR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6379

is necessary to increase the area occupied by plants which are enemies of nematodes. The purity of fields from weeds also guarantees the success of the resistance to nematodes. Preceding crops are of great importance. Potatoes fertilized with manure represent the best preceding crop; winter rye with an introduction of manure directly under beets is the next best. Winter wheat is considered as the best preceding crop among the grain crops. An analysis of 3 examples of 10-field crop rotations with one or one and a half fields of beet is given. -- G. Yu. Dinesman

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

Author : Timoshinin, V. D.
Inst : Grodno Agricultural Institute
Title : Data on the Characteristics of the Sugar Beet Growth in Western Beet-Sowing Districts of the Bielorussian

Orig Pub : Tr. Grodnensk. s.-kh. in-ta, 1957, vyp 3, 49-55

Abstract : Experiments carried out by the Department of Plant Cultivation of the Grodno Agricultural Institute in 1953-1955 show that in the western districts of the Bielorussian, daily increments of sugar beet roots during the fall are greater than in the beet sowing districts of the Ukraine. Taking into account, the direct

Card 1/3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

relation which exists between the development of the tops and the yield of roots, it is necessary to keep the maximum number of leaves on the plant before harvesting, in order to obtain a high yield of sugar beets in Bielorussia. In order to obtain this result, it is necessary to create an agrotechnical background, which will guarantee an increment in weight for well developed tops which will not be less than that of roots up to September 1st - 10th. After that date (up to the end of the harvest of the crop) there should be a rapid outflow of assimilation products from the leaves into the roots. In dry years it is very important to keep the assimilation activity of the sugar beet leaves at least until September 20 - 25th.

Card 2/3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

This can be obtained by proper nourishment of sugar beet with a simultaneous improvement of the water-air soil conditions. -- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6381

Author : Kotova, M. P.

Inst : Altay Agricultural Institute

Title : Cultivation of One Seed Beets in the Altay
Forest-Steppe

Orig Pub : Sb. stud. nauchn.-rabot Altaysk. s.-kh. in-t,
1957, vyp 6, 9-16

Abstract : The effectiveness of growing one seed sugar beets (a mixture of seeds of Bielotserkovskiy and Yaltushkovskiy varieties) compared to the common multi-seed beet of the B541 variety was studied at the Kosikhin sugar beet sovkhos of Altay Kray in 1955. One-seed sugar beets were sown at the rate of 15 and 30 kg/ha and the usual norm is 30 kg/ha. The sowing took place

Card 1/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6381

on May 12th. One-seed sugar beet produced a yield of 300.3 cwt/ha with a sowing norm of 30 kg/ha. Common beets produced only 232 cwt/ha with identical saccharinity (14%). The amount of manual work involved in digging, testing and harvesting in one-seed sugar beets was 32% less than in the case of common sugar beets on the average. When one-seed sugar beets were sown in quantities of 15 kg/ha, the yield was 231 cwt/ha and the saccharinity was 14.05. The amount of work necessary to grow this variant is not indicated. --
N. I. Orlovskiy

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

Author : Yakimenko, I. A.

Inst : Voronezh Agricultural Institute

Title : Changes in Yield and in Quality of Parental Sugar Beets According to the Disposition of Plants and the Fertilizer Bases in the Mikhaylovskiy Sovkhoz

Orig Pub : Zap. Voronezhsk. s.-kh. in-ta, 1957, 27, No 2, 269-272

Abstract : The combination of humus (before cultivation) and mineral fertilizer used in rows and of top dressing produced the heaviest roots (350 g) and the greatest planting density (100.8 thousand/ha), but the smallest saccharinity (18.8%). The introduction of phosphorous

Card 1/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

fertilizers alone in rows and in the top dressing sharply diminished the weight of the roots (down to 210 g) but increased the saccharinity (up to 19.4%) when the density of plants was 97.9 thous/ha. Large doses of Naa are harmful in the fertilization of rows. They have an adverse effect on germination and decrease the density of plants (down to 90.5 thous/ha). The greatest density of plants (89.6 thous/ha, sic!) was obtained in beds which had a surface of 44.5 x 18 cm. The weight of the roots was 238 g and the saccharinity was 15.5%. The least density of plants (42.8 thous/ha) was observed when the plants were disposed in squares of 44.5 x 44.5 cm. The heaviest roots (350 g) and the

Card 2/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

smallest saccharinity (15%) were observed in this case. With the variant of 44.5 x 44.5 cm, intermediate values were obtained in the case of two plants. The increase in saccharinity of 0.4% obtained by introducing PK as additional top dressing, when the plants are disposed in a square, is worth consideration. The experimental was carried out at the Voronezh Agricultural Institute. -- N. I. Orlovskiy

Card 3/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

Author : Bulavin, A. I.
Inst : Khar'kov Agricultural Institute
Title : The Increase in Productivity and Saccharinity of Sugar Beets by Means of Hybridization

Orig Pub : Zap. Khar'kovsk. s.-kh. in-ta, 1958, 15 (52), 127-134

Abstract : Roots of the P632 variety grown in Khar'kovskaya Oblast' (on the Fedorov variety plot) and roots of the U752 variety, grown on the Uladovo-Lyulinets Selection Station (Vinnitsa Oblast') were used for intervarietal cross breeding. Roots of the P632 variety, grown at the Uladovo-Lyulinets Station and in the Fedorov variety plot, were used for intra-

Card 1/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

varietal breeding. Seeds from the roots of the B632 variety alone, grown at the Uladovo-Lyulinets Station were used as control. The cross breeding was carried out when plants left to run to seed were grown in laboratories in winter with additional electric light and then under natural field conditions. The testing of seeds grown in this manner was carried out during the usual spring sowing period with winter plants left to seed. The trials were made at the time of summer sowing (July 20th) with spring plants under field conditions. The increase in yield and the amelioration of quality of seeds was highest in the case of intervarietal cross breeding and somewhat lower for intravarietal cross breeding. An increase in the yield of

Card 2/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

roots and of the sugar crop obtained by intervarietal (to a greater degree) and intravarietal cross breeding was also noticed. The experiments took place at the Khar'kov Agricultural Institute in 1952-1954. -- N. I. Orlovskiy

Card 3/3

HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6385

Author : Vukov, Konstantin; Zana, Janos

Inst : Not given

Title : The Effect of the Density of Sowings on the
Quality and Yield of Sugar Beets

Orig Pub : Cukoripar, 1958, 11, No 1, 16-20

Abstract : The yield decreases and quality of sugar beets
deteriorate (decrease in saccharinity and an
increase in the ash content of the juice) when
the density of plants is: 87 - 91 thous. on
1 ha.

Card 1/1

HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6386

Author : Nemeth, Jozsef

Inst : Not given

Title : Polyploid and Seed Cultivation of Sugar Beets

Orig Pub : Magyar mezöyazd., 1958, 13, No 7, 8-9

Abstract : No abstract given

Card 1/1

HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6387

Author : Vukov, Konstantin

Inst : Not given

Title : Comparative Characteristics of Individual
Sugar Beet Varieties According to the Data
Supplied by Field Experiments

Orig Pub : Cukoripar, 1958, 11, No 2, 37-39

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6388

Author : Lachowski, Jerzy

Inst : Not given

Title : Comparative Action of Dust and Granulated
Superphosphate in the Fertilization of Sugar
Beets

Orig Pub : Gaz. cukrown., 1958, 60, No 4, 131-134

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6390

Author : Petrosyan, G. P.
Inst : Acad. of Science Arm SSR
Title : The Growth of Roots of Some Fruits on Salted
Soils

Orig Pub : Izv. AN ArmSSR, Biol. 1 s.-kh. n., 1957, 10,
No 11, 79-91

Abstract : Experiments on the study of salt resistance in
the Araxes valley region were carried out on
plots which had sodium sulfate-carbonate-
chloride salting. Ground water was lightly
salted (224 g/l), the surface of the water was
at a depth of 2.0 - 2.25 m in the winter, and 1.2
- 1.4 m in summer. The planting was effected

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6390

in pits of 60 x 60 cm, filled with soil which
was free of salt. Most of grafted sets of
apple trees perished when the soil contained
0.258 - 0.357% of easily soluble salts; the
seedlings were more resistant. Pear trees
grew better under these conditions. Quince
grew well on soil containing 0.675 - 0.725%
of the salts. The roots of quince penetrated
deeper than the bottom of the pit. Pomegranate
is also adequately resistant but oleaster is
the most salt resistant plant. -- I. K.
Fortunatov

Card 2/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6393

Author : Kobel
Inst : Karl-Marx University
Title : Problems Relating to the Physiology of Fruit
Trees

Orig Pub : Wiss. Z. Karl-Marx Univ., Leipzig, 1956-1957,
6, No 5, 557-564

Abstract : Experiments, carried out at the Fruit Cultivation
Institute in Wädenswil (Switzerland) showed
that the necessity of thinning out the top
of trees is based on the fact that leaves which
are in the shade consume more carbohydrates than
they can produce. To obtain regular fruit-
bearing, it is recommended to make the ratio of

Card 1/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6393

N : P₂O₅ : K₂O close to 2.5 : 1 : 3.5 The
symptoms of deficiency of N, P, K, Mg, B and
Zn in apple trees are described. Rootstocks
E. M. V and II were good indicators of K
deficiency in the soil. -- I. P. Chernyaev

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6395

Author : Spivakovs'kiy, N.

Inst : Not given

Title : Basic Soil Cultivation and Fertilization in
Orchards

Orig Pub : Vinogradarstvo i sadovodstvo Kryma., 1958,
No 2, 18-21

Abstract : Keeping of orchards under turf accumulated
over many years is the main reason for the poor
state of trees in orchards and their low yield.
Recommendations on the plowing of sod and on a
regular system of soil cultivation are given.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6397

Author : Siddikov, Kh.

Inst : Geogr. Society USSR, Uzb. Branch

Title : Present State of Cultivation of Orchards and
of Viticulture in the Kolkhov' of the Tashkent
Oblast'

Orig Pub : Izv. Uzbekist. fil. Geogr. o-va USSR, 1957,
3, 113-127

Abstract : The natural-historical conditions are described.
The state of cultivation of orchards in various
regions is also described. The progress of
reconstruction of orchards and vineyards dam-
aged by frost in November 1954 is evaluated.
The prospects of development of orchard cul-
tivation are indicated.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6399

Author : Solov'eva, M. A.
Inst : Ukrainian Institute of Orchard Cultivation
Title : Degree and Kind of Damage to Saplings Inflicted
by Frost

Orig Pub : Sad i ogorod, 1958, No 2, 53-56

Abstract : Observations carried out by the Ukrainian
Institute of orchard cultivation in 22 nur-
series of the Ukraine showed that the damage
inflicted by rigorous winters to the wood of
fruit saplings is strongest in the central part
of the stem. It is therefore recommended to
make control cuts, specifically in that part
of the stem, when studying frostbites.

Card 1/1

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6401

Author : Buchta, Viktor
Inst : Czechoslovak Agricultural Academy
Title : Slovakian Achievements in the Field of Fruit
Tree Pruning, Particularly with Respect to
Apricots, Peaches and Almonds

Orig Pub : Sbor. Ceskosl. akad. zemed. ved. Rostl.
vyroba, 1956, 29, No 5, 487-495

Abstract : The top of apricot trees is formed after 4 - 5
years, and the trees are thinned out in August
only, when they start to bear fruit. The
largest branches are also shortened during the
period of fruit bearing. A kettle shaped tree
top is formed after 3 - 4 years in peach trees.

Card 1/2

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6401

Annual shoots are cut for 4 - 5 triple buds and the others for 2 - 3 buds when the tree starts to bear fruit. The pruning of almond trees is carried out in the same manner as in the case of peach trees but with minimum removal of shoots.

Card 2/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6402

Author : Stancevic, Asen. S.
Inst : Fruit Cultivation Institute Chachak
Title : The Effect of Tree Nursing Without Pinching on the Amelioration of Their Qualities, and the Lowering of the Production Costs in Nurseries

Orig Pub : Archiv poljoprivredne nauke, 1956, 9, No 23, 61-72

Abstract : Experiments, conducted at the Fruit Cultivation Institute in Chachak (Yugoslavia), showed that pinching is not necessary when the lateral buds on the stem are cut before the start of the growth of shoots. The cost of saplings

Card 1/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6402

in this case diminished by 22% and their
quality improved, as the tree is not damaged
by cutting of lateral shoots. -- I. K. Fortunatov

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6404

Author : Vazhov, V.

Inst : Not given

Title : Spring Frost Protection of Perennial Plantings

Orig Pub : Vinogradarstvo i sadovodstvo Kryma, 1958,
No 3, 27-29

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6406
Author : Khristov, Lulcho; Vorbanov, Tsvyatko
Inst : Not given
Title : The State and Prospects of Fruit Cultivation
Development in the Neighborhood of Vrachanska
Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No 1, 10-16
Abstract : No abstract given

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6407
Author : Wagner, St.
Inst : Not given
Title : Rootstocks of Pip Fruit Species, Propagated
by Vegetative Means
Orig Pub : Gradina, via si livada, 1958, 7, No 5, 40-42
Abstract : No abstract given

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6408
Author : Dobrescu, V.
Inst : Not given
Title : Remarks and Recommendations with Regard to
Fruit Cultivation in the Dobrudja Steppe
(Rumania)
Orig Pub : Gradina, via si livada, 1958, 7, No 5, 35-39
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6413
Author : Barsukov, N.
Inst : Omsk Agricultural Institute
Title : Longevity of Rennet Orchards in Siberia
Orig Pub : S.-kh. Sibiri, 1958, No 2, 68-70
Abstract : Stem grafted rennet-apple orchards perish
during their 14th - 15th year in Siberia.
However, seedlings and rooted trees produced
with cuttings or root scions (from rooted
plants), live up to 60 years and are highly
productive. This method of propagation,
verified at the Omsk Agricultural Institute,
is recommended.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6414

Author : Lyarskaya, R. P.
Inst : Moscow University
Title : The Formation of Accessory Buds on the Roots
of an Apple Tree

Orig Pub : Vestn. Mosk. un-ta, Ser. Biol., pochvoved.,
geol., geogr. 1957, No 1, 53-62

Abstract : The anatomical picture of the setting, formation and development of buds of wild apple trees from Kamyshin and of wild apples from the Moscow suburbs on the roots of Dwarf apple, Paradiska 9 and Kitayka in the city of Michurinsk was studied. Many sprouts were formed when horizontal roots were damaged on

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6414

the examined apple tree species. The picture of setting, formation and development of accessory root buds in various apple tree species is identical. The embryos of buds are formed in the parenchymal tissue, which can be bast and radial parenchyma or parenchyma of the secondary bark, situated under the cork. Meristematic embryos develop in buds and grow in sprouts most intensively on roots which are 4 - 10 mm thick. When the root is thicker or thinner, they constitute a store of "dormant buds". Mass bud setting on damaged or cut roots can be utilized for apple tree propagation by means of root scions. -- I. K. Fortunatov

Card 2/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6415

Author : Misic, Petar D.

Inst : Yugoslavia Fruit-Growing Institute

Title : The Effect of Meteorological Factors on the
Beginning of the Period of Blooming of Some
Apple Tree Varieties

Orig Pub : Archiv poljoprivredne nauke, 1956, 9, No 23,
37-48

Abstract : The results of five years of observations at
the Fruit-Growing Institute in Cačak (Yugo-
slavia) on apple tree varieties are given in
this paper. Apple tree varieties, grafted on
standard rootstocks, bloomed, under normal
weather conditions, if a certain temperature

Card 1/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6415

total above the biological zero was achieved
starting on January 1st. Varieties, grafted
on seedlings of forest apple trees, required
a somewhat greater temperature total, than
those grafted on M IX. The biological zero
for different varieties was 5.5 - 7°.

Card 2/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6416

Author : Murawski, H.; Wieloch, Elisabeth

Inst : Not given

Title : The Fitness of Apple Tree Hybrid Varieties
for Utilization

Orig Pub : Dtsch. Gartenbau, 1957, 4, No 10, 260-262

Abstract : The fruits of hybrids, obtained as a result of cross breeding of Ernst Bosch and Malus niedzwetzkyana apple trees possess all the necessary properties to obtain high grade wines, fresh aromatic juices and tasty marmalade and preserves by reprocessing. The taste and color of the wines obtained from these apples resembles some southern dessert

Card 1/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6416

wines, particularly vermouth. The fruits are characterized by their intensive coloring (dark red), good fresh taste and strong aroma; the average weight of the fruit is 150 g. The yield is abundant and ripens in the middle of September. It is recommended to create new apple tree varieties by cross breeding many varieties with this apple tree species. -- Z. S. Degtyareva

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6418

Author : Danilov, V. I.
Inst : Altay Agricultural Institute
Title : The Trained Apple Culture in Siberia

Orig Pub : V sb.: Obrezka i formirovaniye plodovykh
derev'ev, Barnaul, 1957, 103-105

Abstract : A horizontal-ringshaped form for the creeping
large fruit apple tree varieties and a low
bushy one for semi-cultivated varieties,
tested by the Altay Agricultural Institute
for the Altay Kray and Omskaya Oblast' are
recommended.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6419

Author : Chepikov, A. K.
Inst : Not given
Title : Training and Pruning Apple Trees in
Novosibirskaya Oblast'

Orig Pub : V sb.: Obrezka i formirovaniye plodovykh
derev'ev, Barnaul, 1957, 112

Abstract : A bush which has the elements of a bushy
flat crown is the most convenient form for
production.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6420
Author : Botez, I.
Inst : Not given
Title : Jonathan - Apple Tree Variety
Orig Pub : Gradina, via si livada, 1958, 7, No 5, 43-47
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6424
Author : Yakovlev, P. I.
Inst : Not given
Title : Growing Apple and Pear Saplings without
Thorns and Node Sprouts
Orig Pub : S.-kh. Tadzhikistana, 1957, No 6, 23-27
Abstract : Cultivation of seedlings, where the wilding
is cut off directly over the grafted eye and
the axillary sprouts growing on the stem of
the graft are broken off while the main
leaves are left on the stem is practiced
in nurseries of Tadzhikistan in order to save
time and reduce the price of planting
material. It is recommended to cut off the

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6424

thorn in the late fall. The breaking of axillary sprouts is effected separately for each variety when their length is not more than 3 cm. The experiment, which took place in the Shakhrynauskiy Sovkhoz, showed that this method of cultivation shortens 6 manual operations. The grafted buds blossom more uniformly and 5 - 12 days earlier. The yield of standard seedlings in the majority of studied apple tree and pear tree varieties was higher than in the case of the former method of cultivation. -- V. R. Yermakova

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6425

Author : Kushnirenko, M. D.
Inst : Central Genetic Laboratory, Michurinsk
Title : The Importance of the Water Regime of the Stages of the Top of Apple and Pear Trees in the Formation of Hybrid Seedlings

Orig Pub : V sb.: Bibl.-osnovy oroshaem. zemled., M. AN USSR, 1957, 186-194

Abstract : 25 - 30 year old apple trees selected by I. S. Gorshkov and S. F. Chernenko, which are characterized by good frost resistance and a well defined multistage top, were taken as mentors at the Central Genetic Laboratory (Michurinsk). Scions of the apert

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6425

anise apple variety were grafted on them, and scions of cultivated pear trees were grafted on the wild pear trees in the spring of 1953. The extension of the bud scales and the opening of buds started earlier on the lower stages of the top and on the grafting made on them. The increment of annual sprouts, water supply of sprouts and leaves, and transpiration intensity were greater in the lower stages of the top. The leaves of the upper stages of the mentor and of the grafts made on them were more xeromorphic. They were characterized by a greater suctorial power, greater osmotic pressure, drought resistance and suffered less from water scarcity. -- I. K. Fortunatov

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6427

Author : Korvatskiy, D. A.
Inst : Dagestan Scientific-Res. Institute of
Agriculture
Title : The Effect of the Water-Salt Level in the
Soil on the Rootstocks of the Mazzard
Cherry Tree

Orig Pub : Byul. nauchno-tekhn. inform. Dagestansk.
n.-i. in-ta s.-kh., 1957, No 1, 5-8

Abstract : Observations on Mazzard cherry tree (*Prunus avium*) plantings, conducted in southern Dagestan, showed that the cultivated cherry tree, grafted on the wild one, produces tall and long lasting trees. They produce high yields,

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6427

but consume a great deal of water. When the Mazzard cherry is grafted on the sour cherry (*Prunus cerasus*), it produces trees of medium height, which supports low salinity and is a good fruit bearer. When it is grafted on the Mahaleb cherry, it produces trees of medium height; they enter rapidly into the phase of commercial fruit bearing and are very productive. They are more drought resistant than those grafted on the first two root-stocks, but they are less salt-resistant.

Card 2/2

POLAND / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6428

Author : Zarzycki, Kazimierz

Inst : Not given

Title : Dwarf Cherry or Steppe Cherry

Orig Pub : Chronmy przyr. ojc., 1958, 14, No 1, 13-20

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6429

Author : Spasov, Tsocho

Inst : Not given

Title : Pruning of Prune and Cherry Trees

Orig Pub : Oveshcharstvo i gradinarstvo, 1958, No 3,
14-17

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing,
Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

Author : Yershov, L. A.

Inst : Not given

Title : Growth and Development of the Root Systems
of Various Peach Tree Stocks in the Crimean
Steppe

Orig Pub : Byul. nauchn. inform. Gos. Nikitsk. sad,
1957, No 5-6, 53-57

Abstract : The strength and character of the structure
of root systems and the dynamics of the growth
of active roots in their yearly growth cycle
in peach, apricot, almond and myrobalan plum
trees, on which Alberta and Ak-Sheftalyu No
3 peaches were grafted, were studied during

Card 1/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

1952-1955. Excavations were carried out according to the "monolith" method and the active roots were studied according to the "arbitrary monolith" method. Plants grafted on peach and apricot trees produced a stronger root system starting in their first years of growth on non-irrigated, dark chestnut, weakly saliferous soil. The main mass of the root system on all studied stocks was disposed in layers A and B. The degree of development of the root system is closely connected with the growth norm of the surface organs. 4 subsequent periods in the annual growth cycle of the root system of the stocks were established. The spring-summer maximum of growth of roots

Card 2/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

takes place over a period of $2\frac{1}{2}$ months for peach trees, $2\frac{1}{2}$ - 3 months for almond and apricot trees, and $3\frac{1}{2}$ - 4 months for the plum trees. The summer slow-down of the growth of the root system is explained by the increase in the temperature (over 21°) and by the lowering of the moisture of the soil. The length of this period is 2 months for apricot and peach trees, $1\frac{1}{2}$ - 2 months in the case of almond trees, and $2\frac{1}{2}$ months for plum trees. The fall maximum in root growth takes place over a period of $2\frac{1}{2}$ months for the almond and plum trees and 3 months for peach and apricot trees. The growth of the root system slows down in the winter because of the lowering of

Card 3/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

the soil temperature down to $+5^{\circ}$. The growth of the root system stops in the winter when the soil temperature descends down to $+2^{\circ}$. Soil watering and the introduction of fertilizers should be coordinated with the beginning of the accelerated period of growth of the root system of every stock species. It is necessary to carry out the fall plowing in the peach orchard before the beginning of the period of growth of active roots in the fall, but not later than 1 - $1\frac{1}{2}$ months before the end of this period. -- I. K. Fortunatov

Card 4/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6435

Author : Yusubov, A. M.
Inst : Voronezh Agricultural Institute
Title : Germination of Apricot Seeds

Orig Pub : Sad i ogorod, 1958, No 2, 58-59

Abstract : The study of the effect of low temperatures on stratified apricot seeds, carried out at the Fruit and Vegetable Experimental Station, Voronezh Agricultural Institute in 1954-1956, showed that the action of low temperatures ($-1-2^{\circ}$) on seeds (during 10 - 80 days) increased germination and growth energy. The growth of seedlings also improved. The control seeds were kept at temperatures of $+4^{\circ}$, $+5^{\circ}$ during the whole stratification period.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6437

Author : Tuz, A. S.

Inst : Not given

Title : Anomalous Blooming and the Fruit Bearing
of Walnut

Orig Pub : Priroda, 1958, No 5, 91-92

Abstract : A repeated blooming of walnut was observed
in Uzbekistan when the trees were damaged
by frost. The Fergan Agricultural Station
in Kuva produced a walnut tree which blooms
late and is not susceptible to damage to frost.

Card 1/1

CHINA / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6439

Author : Ch'en Ping-Hao; Feng Tsun-Wei

Inst : Not given

Title : The Oil-Bearing Tree, the Siberian Filbert
(Corylus Heterophylla)

Orig Pub : Shen-Wu hsüeh t'ung pao, 1958, No 2, 32-34

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6440

Author : Serafimov, Serafim
Inst : Not given
Title : New Almond Plantings

Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No 3,
22-25

Abstract : No abstract given

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing,
Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6444

Author : Müller, H.
Inst : Not given
Title : Problems Posed by the Cultivation of Black
Currant

Orig Pub : Dtsch. Gartenbau, 1958, 5, No 2, 40-43

Abstract : The cultivation of black currant in GDR has
increased lately. A description of common
currant varieties, methods of propagation
and planting is given.

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6445

Author : Vieloch, Elisabeth, Sorge, P.

Inst : Not given

Title : Utilization of Black Currant Depending on
the Variety

Orig Pub : Dtsch. Gartenbau, 1958, 5, No 2, 43-46

Abstract : The following black currant varieties have
become important in the GDR: Black
Rosenthal, Black Silverter and Goliath.
A description of these varieties and the
fitness of each one of them for reprocessing
is given.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6446

Author : Potapov, S.

Inst : Not given

Title : New Gooseberry Varieties

Orig Pub : Mosk. kolkhoznik, 1958, No 5, 41

Abstract : The best gooseberry varieties (Smena,
Izumrudnyy, Pyatiletka), which were tested
successfully in the Kolomenskiy variety
sector of fruit-berry (Moskovskaya Oblast')
crops, are recommended.

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6448

Author : Eichholz, W.

Inst : Not given

Title : Utilization of Seabuck Thorn Berries

Orig Pub : Nahrung, 1958, 2, No 2, 156-168

Abstract : The harvesting of seabuck thorn berries requires much work and is not mechanized, a fact which hampers its wide cultivation. Berries can not endure transportation and therefore their utilization for reprocessing is possible only in the vicinity of the plantings. The production of vitamin C and of fats from these berries does not present any advantages in comparison with other vegetable raw materials.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

Author : Akchurun, R. K.

Inst : All-Union Sci. Res. Institute of Vini- and
Viticulture

Title : Irrigation of Vineyards in the Southern
Ukraine

Orig Pub : Byul. nauchno-tekhn. inform. Vses. n.-i.
in-t vinodeliya i vinogradarstva, 1957, No 2,
21-28

Abstract : Experiments, carried out in the Zaporozh'ye Oblast' on light argillaceous chernozem, and in the Odessa Oblast' on heavy argillaceous chernozem, showed that the moisture of the soil at a depth of 2 meters, created by

Card 1/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

watering 1500 - 2000 m³/ha persisted during dry years until the first half of July. It provides for a relatively secure weathering of the first three phases of development of the grape bush. The increment of yield caused by the watering was 11 - 12%. The increment of yield in experiments with irrigation was 60%, when the load was unchanged, when the load was increased by 61- 67%, the increment was 138% and when the load was increased more than twice, the increment was >700%. Optimal watering doses for light argillaceous chernozems are 1500 m³/ha. For heavy argillaceous chernozems the best dose was 2000 m³/ha. The moisture of the layer where the roots are should be maintained during

Card 2/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

the vegetation period at the level of 70 - 75% of capacity for the table grape varieties. During the period of full ripeness, the moisture level should be at 60% of capacity. It is necessary to increase the load of shrubs during irrigation. -- I. K. Fortunatov

Card 3/3

HUNGARY / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

Author : Ebenyi, Gyula

Inst : Not given

Title : The Fertilization of Grapes

Orig Pub : Agrartudomány, 1956, 8, No 7, 299-302

Abstract : The possibility of replacing manure by other organic fertilizers was studied. Rubbish, straw, crushed vine, turf, lignite, reed combined with mineral fertilizers were used. Experiments took place in Kecskemet on sandy soil, in Tokaihegyalja - on argillaceous soil, in Eger on neutral soils and in Badacson - on sierozem soils. Whenever manure was not applied at least once every 3 - 4 years, any

Card 1/3

HUNGARY / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

combinations with other fertilizers remained ineffective. Artificial organic fertilizers were placed in the fall into the soil at a depth of 25 - 30 cm and were covered with a layer of mineral fertilizers. In most variants, the humification of organic substances had started already during the first year and finished during the third year. The increment in yield on loess-like soils of Tokaihegyalja, on plots which had received 15 t/ha of lignite dust mixed with NPK (N_c 0.4 t/ha, P_c 0.6 t/ha, K_c 0.2 t/ha), was 27% in comparison with plots which had received only mineral fertilizers. In the variant involving crushed vine (15 t/ha)

Card 2/3

HUNGARY / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

mixed with NPK, applied in Kecskemet, the increment was 10%. At the same time, the increment, obtained from a mixture of 60 t/ha of manure with NPK, was 2.5%. The action of 60 t/ha of manure and 120 t/ha of lignite mixed with 0.8 t N_c, 0.6 t P_c and 0.2 t K_c were compared in Eger. The increment due to the lignite dust was 38% as compared with 24% for manure. No enrichment of the soil with dissolved humus was noticed during the first year at a depth of 20 cm. The amount of assimilable N increased in all examined kinds of soil.-- I. A. Popovich

Card 3/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6453

Author : Panina, V. V.

Inst : Not given

Title : Experimental Foliar Dressing of Grapes During Hardening and in the Planting Pit

Orig Pub : Vinodeliye i vinogradarstvo USSR, 1958, No 2, 58

Abstract : Experiments, carried out at the kolkhoz' im. Karl Liebknecht (Odessa Oblast'), showed that spraying of grafts in stratified holes and in planting with 0.01% of B solution (boric acid) together with Bordeaux mixture strengthened the branching and ripening of the seedlings.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6454

Author : Tkachenko, G. V.; Korneev, N. T.

Inst : Not given

Title : The Effect of Lignite Waste on the Yield of
Grapes

Orig Pub : Ukr. botanichniy zh., 1957, 14, No 4, 47-51

Abstract : Lignite waste placed together with manure
in the form of compost (2 parts of manure and
1 part of lignite waste, 5 kg for each shrub
of grapes), as well as in pure form, or to-
gether with a mineral fertilizer accelerated
the beginning of the flow of sap by 2 - 3
days. The opening of buds and blooming were
also accelerated by 2 - 3 days, the fall of the

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6454

flowers and ovaries decreased and the yield
increased by 7.3 - 24.7%. These experiments
took place in the vineyard of the Uzhgorod
wine sovkhoz in 1955. The highest yield was
obtained, when lignite was applied in the
form of compost. The mixture of mineral
fertilizers (NPK) with the lignite waste
(in ratio 1 : 1.5) produced an increment of
yield of 14.4%, and the mixture of manure
with lignite increased the yield by 24.7%. --
E. T. Zhukovskaya

Card. 2/2

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6455

Author : Mrva, Josef
Inst : Sci.-Res. Institute of Vini- and Viticulture
in Bratislava
Title : Results of Experiments on Establishing the
Nutritional Needs of Grapevines

Orig Pub : Sbor. Ceskosl. akad. zeméd. ved. Rada-Rostl.
vyroba, 1956, 29, No 4, 303-317

Abstract : The scientific-research institute of vini-
and viticulture in Bratislava (Czechoslovakia)
recommended analyzing both the soil and the
grape plants, in order to establish the needs
of vineyards for fertilization.

Card 1/1

HUNGARY / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6456

Author : Bogнар, Karoly
Inst : Not given
Title : The Pressing Problem of Fertilizing Vineyards

Orig Pub : Agrartudomány, 1957, 9, No 10, 24-27

Abstract : This is a brief review of references on the
problem of fertilization of vineyards.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6457

Author : Gerasimov, B. A.
Inst : Georgian Agricultural Institute
Title : The Role of Some Micronutrients in the
Phenomenon of Chlorosis of Grapevine

Orig Pub : Soobshch. AM GruzSSR, 1957, 18, No 6, 733-740

Abstract : The dynamics of the content of Fe, Mn and Cu
in the ashes of leaves of chlorotic vines of
Goruli mtsvane, Aligote and Pino shavi,
grafted on rootstocks 3309 and healthy shrubs
of Pino shavi, grafted on rootstock 5-b, b,
were studied at the Georgian Agricultural
Institute. A more intensive process of
accumulation of mineral substances was found

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6457

in leaves of chlorotic vines, than in the
healthy ones. Healthy leaves were richer in
Fe and Mn, but poorer in Cu. The ratio of
Mn to Fe was higher in ashes of healthy leaves,
than in those of diseased ones. Virus
type chlorosis, in which this ratio was
disturbed, was found in the Goruli mtsvane
variety. -- R. I. Serebryanny

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6458

Author : Zotov, V. V.

Inst : Not given

Title : Clonal Selection of Grapes

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye
Moldavii, 1957, No 4, 38-39

Abstract : Several authors (P. K. Soldatov, O. I. Matvereva and others) indicated that the high productivity of shrubs does not hold in their posterity, if the mother shrubs did not have different morphological features than poorly productive shrubs. This would negate the possibility of clonal selection by productivity features. However, experiments

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6458

(Orchard cultivation, vini- and viticulture of Moldavia, 1955, No 5) showed, that if the scions are taken from fruitful tall sprouts of highly productive maternal shrubs, the productivity feature holds in their posterity. -- A. M. Shevchenko

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6459

Author : Koshelnik, I.

Inst : Not given

Title : Local Black Fetyaska Variety

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye
Moldavii, 1958, No 2, 37-38

Abstract : The Black Fetyaska variety is widespread near Kishenev (Moldavian SSR) and in Rumania. The growth potential and productivity are high. The mildew resistance is the same as in the white Fetyaska variety. The root system is powerful. The shrubs with their own roots are capable of regeneration. The variety has good potential for wine production.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

Author : Stefanescu, Gh.; Banita, P.; Baltagi, B.

Inst : Not given

Title : Study of Dry Pruning of Rootstocks of
Grapevines

Orig Pub : Comun. Acad. RRP, 1957, 7, No 8, 727-732

Abstract : It was established at the experimental stations of viniculture of Dragashan and Krachunel (Rumania) in 1951-1954 that the dry pruning of grapevine stocks (Berlandieri x Riparia Teleki 8B and Berlandieri x Riparia Cober 5BB, Riparia Gloar), when small branches of 2 cm with two and 4 buds are left, causes the vegetation of shrubs to

Card 1/3

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

begin 8 - 10 days earlier in comparison with the control (pruning without branches left). The more branches were left, the greater the average increment of sprouts was, up to the moment of the first cultivation. The growth and the size of sprouts in prunings where small branches were kept, especially if they were 2 cm long, were more uniform, than in variants where the branches were removed. The greatest yield of stock scions (with hilling of shrubs) was obtained by pruning and by keeping branches of 2 cm long (178.000), the smallest yield resulted from short pruning (without branches) - 171.500 scions from 1 ha. It is recommended to hill the shrubs for the winter

Card 2/3

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

time only; the layer of earth should be 10 - 15 cm. The pruning of stock vines while conserving branches of 2 cm in length is recommended. -- E. T. Zhukovskaya

Card 3/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6462

Author : Ten, P.; Sokolova, A.; Bazarnaya, L.
Inst : Voronezh State Pedagogical Institute
Title : Experiments on the Propagation of Grapes
in the Voronezhskaya Oblast'

Orig Pub : Sb. stud. rabot Voronezhsk. gos. ped. in-t,
1957, vyp 2, 15-19

Abstract : Experiments carried out at the institute
showed that grapes in Voronezhskaya Oblast'
can be successfully propagated with grape
stalks, green scions, and cuttings.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries, M-6
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6463

Author : Popescu, Gh.
Inst : Not given
Title : High Yields of Grapes Obtained at the
Odobesti Experimental Station of Viniculture
in 1956

Orig Pub : Gradina, via si livada, 1957, 6, No 2, 40-44

Abstract : In 1956 102 cwt/ha of grapes were produced
on the average at the experimental station
on an area of 72.8 ha. On an area of 2 ha
186 cwt/ha were obtained (Italian Riesling
and Mustasfeger varieties). On an area of
4 ha, 172 cwt/ha were obtained. On an area
of 1.5 ha (Golden Odobesti variety), 148 cwt

Card 1/2

RUMANIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6463

of grapes were obtained per ha. -- Ye. T.
Zhukovskaya

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6465

Author : Beridze, G. I.

Inst : Not given

Title : Renewal of Wine Varieties of Abkhazia
Grapes

Orig Pub : Sad i ogorod, 1957, No 12, 53-54

Abstract : This is a brief description of 9 local
grape varieites.

Card 1/1

HUNGARY / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6466
Author : Szegedi, Sandor
Inst : Not given
Title : Deep Planting of Grapes on Sandy Soils
Orig Pub : Kerteszeti es szoleszeti, 1958, 7, No 23, 6-8
Abstract : No abstract given

Card 1/1

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries,
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6467
Author : Foltyn, Oskar
Inst : Not given
Title : Protection of Vineyards From Frosts in the
Quiescent Stage of Vegetation
Orig Pub : Vinarstvi, 1957, 50, No 1, 4
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6469
Author : Mel'nik, S. A.
Inst : Not given
Title : The Achievements of Viniculture in the USSR
Orig Pub : Agrobiologiya, 1958, No 1, 109-116
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6472
Author : Laukaityte, G.
Inst : Kaunas Medical Institute
Title : Botanical Description of Elssholzia Cristata
and Its Application in Popular Medicine
Orig Pub : Tr. Kaunassk. med. in-ta, 1957, 5, 215-224
Abstract : The morphological and anatomic structures
of Elssholzia cristata (I) of the Labiatae
family were studied, and data on its utiliza-
tion in Lithuanian popular medicine was
assembled as a result. It is widespread in
the Lithuanian SSR. A description of the
stem, leaves, flowers, racemes, sepals,
petals, stamens, pistils and fruits is given.

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6472

The characteristic elements of all above-ground parts of the plant are hair, which have a thick warty cuticle and which consist of 1 - 10 cells, glandular hairs with a one celled cap on a one celled pedicle, and eight celled glands containing essential oil. I was formerly widely used in popular medicine for treating pneumonia, grippe and common colds. -- T. L. Braytseva

Card 2/2

GDR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6473

Author : Nadler, F.
Inst : Not given
Title : Mallow Cultivation in the Michurin Field

Orig Pub : Mitchurinbewegung, 1958, 7, No 3, 132-135

Abstract : The methods of cultivation of lilac-blue mallow on the Michurin field in Hermsdorf are described. This plant is utilized in medicine and is melliferous.

Card 1/1

CHINA / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6474

Author : Tseng Yü-lin

Inst : Not given

Title : The Yünnan Geranium Napelense Sweet and the
Preparation of Ointments Deriving From It

Orig Pub : Chung yao t'ung pao, 1957, 3, No 6, 235-236

Abstract : Geranium napelense is a perennial medicinal
plant, which grows in the province of Yünnan.
Morphological characteristics are given. The
method of preparation of the ointment is
given.

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

Author : Yunusov, S. Yu.; Plekhanova, N. V.

Inst : Academy of Science, UzSSR

Title : Study of Alkaloids in Sophora Griffithii
Stock

Orig Pub : Dokl. AN UzSSR, 1957, No 8, 17-19

Abstract : Alkaloids derived from the leaves and seeds
of S. griffithii were isolated. The content
of alkaloids in leaves (~4.65%) was
approximately the same during the fruit
bearing stage and after the fall of fruits;
1.6% of pachycarpine and 0.57% of cytisine
were obtained by separating the alkaloids.
5.93% of the alkaloids were isolated from

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

seeds. 4.12% of cytisine were obtained by separating these alkaloids. The method of extraction of the alkaloids, their separation and identification are described. -- A. A. Zaytseva

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6479

Author : Gusev, V.
Inst : Vologda State Pedagogical Institute
Title : Analysis of Couch Grass (*Agropyrum Repens* P.B.) and Its Content of Alkaloids

Orig Pub : Sb. stud. rabot. Vologodsk. gos ped. in-t, 1957, vyp 3, 130-131

Abstract : Samples of couch grass collected on the plowed field near the village of Staroye, Cheboksarskiy Rayon, Vologodskaya Oblast' in August 154, were analyzed to establish their content in alkaloids. The methods of qualitative and quantitative analyses of the raw material are described. Examinations

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6479

showed the presence of alkaloids in all parts of the plant, but not in the same amount. Spikelets contained the greatest amount of alkaloids (0.044%) in relation to the dry weight of the plant. -- T. L. Braytseva

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6481

Author : Lyukshenkova, E. Ya.
Inst : Moscow Pharmaceutical Institute
Title : Pharmacognostical Study of Chelidonium
Laciniatum Mill

Orig Pub : Mosk. farmatsevt. in-t, 1957, 1, 179-186

Abstract : Chelidonium laciniatum Mill. (I) is a mutant of Chelidonium majus L. (II). Examinations showed that there is no substantial difference in anatomical structure of organs in I and II. The content of the principal active substances (particularly of alkaloids and of vitamin C) is much less in I than in II. The content of alkaloids, of vitamin C and of carotin in

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6481

both species depends on the age of the plant. The qualitative composition of alkaloids in the infusions of I and II was studied by observing their luminescence under UV - light and by using the method of distributive paper chromatography. It was shown that the content of chelidonine in the above-surface and of sanguinarine in the root system in II is higher than in I. However, the content of berberine (chelidoxantine) is somewhat greater in I than in II. The content of chelidonine in the part above the surface in I and II is much greater than in the root system. -- T. L. Braytseva

Card 2/2

POLAND / Cultivated Plants. Medicinal, Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6483

Author : Kosch, Anna
Inst : Not given
Title : Artemisia Kurramensis Qazilbash-New Santonin
Raw Material

Orig Pub : Dissert. pharmac. PAN, 1957, 9, No 4, 319-323

Abstract : No abstract given

Card 1/1

KOREA / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6485
Author : Li Den Hua
Inst : Not given
Title : Medicinal Plants Existing in the Province of
Northern P'enyang and Their Uses
Orig Pub : Choson Yakhak, 1957, No 1, 54-57
Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6486
Author : Kotlyarova, M. V.
Inst : Sukhum Experimental Station of Essential
Oil Crops
Title : Composition of Large Flowered Jasmine Oil
Obtained by the Method of Dynamic Sorption
Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiro-
maslichn. kul'tur, 1957, vyp 2, 115-130
Abstract : Large flowered jasmine (*Jasminum grandiflorum*
L.), cultivated on the shores of the
Mediterranean, was introduced in the USSR in
1928. Its agricultural engineering was
developed at the Sukhumi Experimental Station
of Essential Oil Crops. Industrial plantations

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6486

of large flowered jasmine were organized at the Khorshi Sovkhoz (Western Georgia). Oil from jasmine flowers is characterized by its wonderful aroma and by its fixing properties. A new method of treatment of jasmine flowers - the method of dynamic sorption - was developed at the technological laboratory of the Sukhumi Station. The main components, extracted and obtained by enfleurage (extraction of fats) of jasmine oils, are present in oils obtained by this method. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6488

Author : Tavberidze, I. A.; Simonyan, G. A.
Inst : Sukhumi Zonal Experimental Station
Title : Contribution to the Problem of Cultivation of Pink Geranium in the Ararat Valley

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiro-maslichn. kul'tur, 1957, vyp 2, 145-149

Abstract : The results of experiments on the cultivation of pink geranium (*Pelargonium roseum* Willd.) in Armenia at the Oktemberyanskiy base of ZOS are given in this paper. The effect of the period and number of cuttings (mowings) on the yield of geranium was studied. The effect of the period of fall cuttings on

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil-
Bearing. Toxins.

M-7

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6488

hibernation, the development of the maximum sowing density, the effect of mineral fertilizers and the influence of preceding crops were also studied. It was established that by utilizing necessary cultivation practices, it is possible to obtain 25 - 30 tons of green mass and 26 - 32 kg of essential oil per ha. Growing of geranium styles by sowing plants in areas of 90 x 90 cm guarantees a yield of standard scions of up to 150 thousand per ha. This data as well as the data on geranium yields from model plots in some kolkhozes permits one to conclude that the cultivation and production of high yields of geranium is quite possible in the Ararat Valley. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil-
Bearing. Toxins.

M-7

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

Author : Maslova, T. A.
Inst : Sukhumi Zonal Experimental Station
Title : Contribution to the Problem of Geranium
Selection

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiro-
maslichn. kul'tur, 1957, vyp 2, 19-34

Abstract : Pink geranium (*Pelargonium roseum* Willd.)
is characterized by a low yield of essential
oil (0.11 - 0.12% of green mass), poor
implanting capacity and the spread form of
its shrubs, which makes mechanized soil culti-
vation difficult in the period of vegetation.
New hybrid geranium forms with high oil

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

contents which have $2\frac{1}{2}$ - 4 times more oil than pink geranium, and have a higher content of citronellol and geraniol, were developed at the Sukhumi Station of Essential Oil Crops, starting in 1937. The hybrids have good implanting properties (10% higher than pink geranium), high yields of green mass (25 t/ha), and the shrubs have a compact straight shape. This permits one to mechanize the cultivation of the plants and the harvestings of the crop. Part of the hybrids are being tested at the station at the present time; hybrids 220 k-15 and 229 k-40 are bred for subsequent delivery to industry; hybrid No 5 is being tried in the sovkhoses

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

of Georgia; hybrid 220 k-24 is delivered to industry for implanting. The results obtained by the staff of the station while utilizing various methods of selection are described in detail; the main parental forms producing interesting progeny upon cross breeding (P. roseum, P. capitatum and P. radula) are described; the agrotechny to be used for the mother plants is given. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6490

Author : Volkhovskaya, U. V.
Inst : Sukhumi Zonal Experimental Station
Title : Methods of Growing Patchouli Seedlings

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiro-
maslichn. kul'tur, 1957, vyp 2, 45-65

Abstract : The essential oil, which is contained in
leaves of patchouli (Pogostemon patchouli
Pell Saut) - a tropical perennial plant of
the mint family, is utilized by the perfume
industry as a stable fixer. Long stemmed
patchouli sets were received by the Sukhumi
Zonal Experimental Station from the island of
Java in 1932 and from that time on, the

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6490

station has carried out experiments on the
study of its agrotechnical engineering and
methods of propagation. It was established
that in the Soviet subtropics, patchouli
must be cultivated as an annual crop. The
problems of temperature conditions during the
growth of the seedlings, the time for style
cutting, the technique of planting scions,
their fertilization, hardening, pinching
and other data are discussed in detail. On
the basis of data collected over a period
of many years, it is recommended to cultivate
patchouli seedlings in hothouses and in
ground greenhouses with heating during the
critical periods. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

Author : Pravdolyubova, A. A.
Inst : Sukhumi Zonal Experimental Station
Title : Production of Vetiver No 14 Clones Which
Have a High Oil Content Among a Population
of East Indian Vetiver

Orig Pub : Tr. Sukhumsk. Zonal'n. opytn. st. efiro-
maslichn. kul'tur, 1957, vyp 2, 35-44

Abstract : Clone 14, characterized by high quality
and excellent yield of oil (3.5 - 4 on the
average and even 6%), was produced at the
Sukhumi Zonal Experimental Station of Essential
Oil Crops during the study of East Indian
vetiver (*Vetiveria zizanioides* Stapf.).
It was established that the content of oil

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

in the Soviet subtropics depends not only
on the age of plants but on the growth and
development of plants during the vegetation
period, as well. According to preliminary
data, vetiver clone 14 can give 1 - 1.5 t
of absolutely dry roots with a yield of oil
ranging from 35 to 50 kg/ha upon planting
of 20 thousand two year old sets. Perfumes,
prepared from the oil of vetiver clone 14
were more rated highly at the Glavparfyumer
than those prepared with imported vetiver
oil. The station transmitted 23 thousand
seedlings of vetiver clone 14 for implanting
in production during 1955-1957. Testing
of this clone is carried out at the present

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

time in Georgia, Krasnodar Kray and in
Middle Asia. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

Author : Volkhovskaya, U. V.; Azarevich, O. I.
Inst : All-Union Sc.-Res. Inst. of Synthetic and
Natural Aromatic Substances
Title : Cultivation of Lemon Eucalyptus

Orig Pub : Tr. Vses. n.-i. in-t sintetich. i
natural'nykh dushistykh veshchestv, 1957,
vyp 3, 29-46

Abstract : The lemongum or lemon eucalyptus (*Eucalyptus
citriodora* Hook.) is a tall evergreen, rapid
growing tree. It grows normally in Australia,
in New South Wales, on the northern shore
of Queensland. Its essential oil contains
citronellal - an initial product of

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

hydroxycitronellal - which is one of the main components of perfumes and eau de Cologne. Essential oil is contained in the leaves and young twigs, wherefrom it is extracted by distillation with steam. The average yield of oil relative to the fresh verdure is 0.8%. The citronellal content in the oil is 90 - 95%. Annual cultivation of lemon eucalyptus in Western Georgia guarantees a yield of green mass of 6 - 11 t per ha with a yield of essential oil of 0.8%. In case of a favorable winter with a minimal temperature - 2.5 - 3°, the majority of plants of lemon eucalyptus hibernates well. During the second year, high trees will grow or, if the plants

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

are cut in the spring, for stumps - there will be scrub. The agricultural engineering of lemongum developed in the course of several years at the Sukhumi Zonal Experimental Station, is described. -- L. N. Korolev

Card 3/3

BULGARIA / Cultivated Plants. Medicinal. Essential M-7
Oil-Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6494

Author : Staykov, V.; Panayotov, Iv.; Borisov, G.
Inst : Bulgarian Institute of Plant Cultivation
Title : Study of the Fruits of Juniper and of the
Essential Oil Obtained From Them

Orig Pub : Izv. In-ta rastenievodstva, Bolg. AN.,
1958, kn. 5, 339-347

Abstract : The best results are obtained with water-
steam distillation of the essential oil.
Bulgarian essential oil does not differ from
the best foreign essential oils in its physi-
cal and chemical constants. Waste products
derived from the distillation of juniper
fruits rich in sugar, protein and fats are

Card 1/2

BULGARIA / Cultivated Plants. Medicinal. Essential M-7
Oil-Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6494

used to obtain alcohol. They are also used
as animal food.

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496
Author : Vasina, A. N.
Inst : Institute of Agricultural Information
Title : Potential of Pyrethrum Cultivation (Review)
Orig Pub : Sb. in-ta s.-kh. inform., 1958, No 1, 22-24

Abstract : Pyrethrum (*Pyrethrum cinerariaefolium*)
introduced to Kenya at the beginning of the
current century is well acclimatized there
and produces a high yield per ha. The crop
of dry racemes of pyrethrum attained 7400 t
in 1945 and Kenya occupied one of the first
places as a supplier of pyrethrum on the
world market. However, in the post war years,
in connection with the appearance of pre-

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496

parations of DDT, benzine hexachloride and
many other highly effective synthetic in-
secticides the production of pyrethrum in
Kenya was sharply curtailed and only at
present it started to grow anew attaining
3400 t in 1955. Alletrine, a product of
syntheses of an allyl homolog of cinerine I,
which enters into composition of acting sub-
stances of pyrethrum, became for a large
part a rival of pyrethrum. Beside Kenya,
India also cultivates pyrethrum. Its need
in dry racemes is calculated at 4 - 6 thousand
tons. England is also a producer of pyrethrum.
The Rothamsted Agricultural Experimental

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496

Station is conducting studies on the biology
of pyrethrum. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Decorative. M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

Author : Nikitin, I. N.
Inst : Leningrad Forest Academy
Title : Intergrowth of Trees and Ornamental Ground
Construction

Orig Pub : Tr. Leningr. lesotekhn. akad., 1957, vyp 82,
ch. 1, 3-10

Abstract : The problem of natural intergrowth of trees
(self grafting) and the expediency of its
utilization in ornamental ground construction
is discussed. In the distant past special
compact (dense) tree plantings were effected
in order to obtain intergrowths. The method
was used to improve the quality of fruits,
to increase the size of flowers and so on.

Card 1/3

USSR / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

Examples of utilization of the method of intergrowth in garden-park construction in Germany are given. A description and characteristics of particulars of the growth and conditions of natural intergrowth of trees (Siberian firs, lindens, pines, white poplars, Himalayan cedars and others) in Leningrad and in other localities, according to the observations of the author in the course of 6 - 8 years are given. It was established by studies of the collective of the department that the trees of the first and second magnitude intergrown by their roots attain greater vigor, have an ampler fruit bearing capacity, produce better seeds, are more resistant to unfavorable conditions and

Card 2/3

USSR / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

are longer living than solitary growing trees. Intergrown pines have more resin passages on one unit of their girth than the solitary growing ones. -- An. A. Zaytseva

Card 3/3

CZECHOSLOVAKIA / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6517

Author : Pazout, F.

Inst : Not given

Title : Cactuses of the Ariocarpus Genus

Orig Pub : Ziva, 1958, 6, No 1, 18-21

Abstract : No abstract given

Card 1/1

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175