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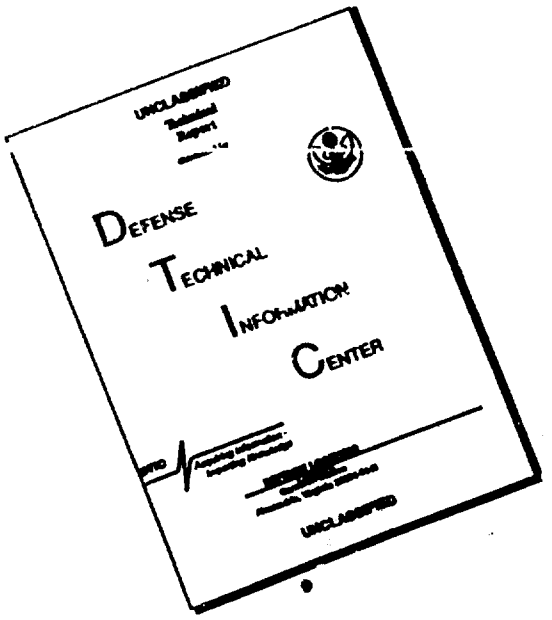

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CLASTOSPORIOSIS OF STONE FRUIT [AMYGDALACEAE]

Pages 222-223 ...

I.P. Naumova

Stone fruit clasterosporiosis is caused primarily by the fungus Clasterosporium carpophilum Aderh., but, in addition, it can be induced by Cercospora cerasella Sacc., Phyllosticta prunicola Sacc. and Ovuaria circumscissa Sorok. Bacteria can also be the cause of clasterosporiosis: Pseudomonas caucasicum Schneider, Xanthomonas pruni (E. Smith) Dowron and some other species, and in New Zealand -- a virus.

In preparing our survey we used data which did not always indicate the name of the pathogen. For this reason we deemed it possible to dwell on the concrete data concerning clasterosporiosis of the apricot and peach, especially since there was no great economic significance to clasterosporiosis of the plum, cherry, and mazzard in 1964.

As we know, clasterosporiosis attacks the leaves, fruit, buds and runners of trees inducing not only a quantitative and qualitative decrease in yield, but also at times death of the trees. Very high damage due to this disease is recorded in Moldavia, Armenia, Georgia, in Dagestan ASSR [Autonomous SSR], and Chechen-Ingushskaya ASSR, in Krymskaya Oblast and also in some parts of Central Asia.

In Kirgizia the beneficial meterological conditions and lack of systematic control of clasterosporiosis led to intensive development of the disease beginning in early April and involving first the leaves then the fruit of the apricot (Table 1).

In the Chuyskaya and Talasskaya plains clasterosporioris was also widespread; apricot fruit was particularly affected (from 70 to 100%).

In Dagestan ASSR meteorological conditions were extremely favorable to development of clasterosporiosis, and in the absence of control measures there was an outbreak of this disease (Tables 2 and 3).

Table 1

Clasterosporiosis invasion of apricots in Oshskaya oblast (May 1964)

Район	Процент поражения	
	листьев	плодов
Ошский	80	60
Узгенский	85	60

Legend:

a) rayon
b) percentage invaded
c) leaves
d) fruit
e) Frunzenskiy
f) Suzakskiy
g) Leninskiy
h) Uzgenskiy

Table 2

Clasterosporiosis invasion of apricot plantings in Dagestan ASSR (1964)

Место проведения учета	Сорт	Площадь, подвергшаяся учету (га)	Процент поражения плодов	
			в июне	в июле
[illegible] им. Мичурина Кайтагского района	Красношекий	20	30,7	78,0
[illegible] им. Ленина Хасавюртовского района	То же	40	23,0	32,0
[illegible] им. Дахадаева Гунибского района	Сортосмесь	10	—	50,0

Legend:

a) area studied
b) variety
c) area invaded (hectares)
d) percentage of fruit invaded
e) in June
f) in July
g) collective farm imeni Michurin, Kaytagskiy Rayon
h) collective farm imeni Lenin, Khasav"yurtovskiy Rayon
i) collective farm imeni Dakhadayev, Gunibskiy Rayon
j) Krasnoshchekiy [red-cheeked]
k) Sortosmes' [variety mixture]

Table 3

Damage Due to Clasterosporiosis in Farms of Untsukul'skiy Rayon of Dagestan ASSR in 1964

Legend:

a) collective farm
b) fruit delivered
c) total (kilograms)
d) percentage of standard
e) percentage of non-standard
f) including percentage of nonstandard due to clasterosporiosis
g) loss due to clasterosporiosis (rubles)
h) imeni Ordzhonikidze
i) imeni Dzerzhinskiy
j) imeni Karl Marx

Thus the studies at the Gergebel'skiy center of the collective farm imeni Ordzhonikidze established that by 27 May 87% of the fruit and 66% of the leaves of Shindakhlan apricots were invaded, involving an area of 72 hectares; 90% of the fruit and 82% of the leaves of the Khonobakh variety were involved.

In the irrigated orchards of Moldavia where the summer drought did not affect development of the disease from 80 to 100% of the stone fruit were invaded. In August this led to massive leaf shedding.

In Southern Ukraine (Krymskaya Oblast) apricot and peach plantings were particularly affected (farms in Sakskiy, Leninskiy, Krasnoperekopskiy and Dzhankoyskiy rayons); branches died on the trees.

Forest areas in which wild apricots are planted among other species present a great danger for stone fruit plantings. In most farms such forest strips are not treated with chemicals; therefore they are always foci of infection.

Moderate development of the disease on stone fruit has been recorded in almost all oblasts of European USSR as well as in Chelyabinskaya Oblast and Primorskiy Kray.

In the presence of favorable meteorological conditions and absence of prompt spraying in stone fruit orchards and windbreaker forest strips there will be very intensive development of clastero-sporiosis in 1965 and subsequent years in Dagestan, Kirgizia, Moldavia, Crimea and Armenia.