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WORLDWIDE REPORT

EPIDEMIOLOGY

No. 337

CONTENTS

HUMAN DISEASES

AUSTRALIA

Flu Epidemic Widespread, Hits Hardest in New South Wales (Sue Cook; THE AUSTRALIAN, 31 Aug 83).....	1
--	---

BANGLADESH

Briefs

Saidpur Diarrhea Deaths	2
Nilphamari Cholera Deaths	2
More Diarrhea Deaths	2
Brahmanbaria Cholera Deaths	2

COSTA RICA

Briefs

Hepatitis Spreading	3
Malaria Under Control	3

DENMARK

Death Toll From AIDS Now Stands at Seven (BERLINGSKE TIDENDE, 22 Sep 83).....	4
--	---

EL SALVADOR

Briefs

New Hospital in Santa Tecla	5
-----------------------------	---

ETHIOPIA

Briefs

Vaccination Campaign Strategy	6
Malaria Control in Gondar	6

GUATEMALA

Briefs

Polio Cases Reported	7
----------------------	---

HONDURAS

Briefs

Indian Illnesses Investigated	8
-------------------------------	---

INDIA

Toll Mounts in Uttar Pradesh Mystery Disease (THE HINDU, 6 Oct 83).....	9
--	---

Plague Reappears in Simla After 17 Years (THE STATESMAN, 1 Oct 83).....	10
--	----

Steps Taken Against Plague in Himachal Pradesh (PATRIOT, 24 Sep 83).....	12
---	----

Dengue, Viral Fever Epidemics in Delhi (PATRIOT, 29 Sep 83).....	14
---	----

Briefs

Cholera in Gujarat	16
More Cholera Deaths	16
Gastroenteritis in Thane	16
Gastroenteritis Sufferers	16
Cholera in Dinajpur	17
Gastroenteritis in Simla	17
Kala-Azar in Bihar	17
Cholera in Jalpaiguri	18
Mystery Disease Deaths	18
Cholera in West Dinajpur	18
Mysterious Eye Disease	18
Cholera 'Epidemic Areas'	18

INDONESIA

Briefs

Anthrax Outbreak	19
------------------	----

JAMAICA

Shortage of Drugs Having Impact on Public Health
(THE DAILY GLEANER, 12 Aug 83)..... 20

Blood Donations Decline Public Fear of AIDS Cited
(THE DAILY GLEANER, 28 Sep 83)..... 23

MOZAMBIQUE

Briefs
Cholera Outbreak in Maputo 25

NAMIBIA

Plague Reportedly Traced to Oyambo War Zone
(Tony Weaver; RAND DAILY MAIL, 15 Sep 83; THE CAPE
TIMES, 16 Sep 83)..... 26

One Death Reported
No SADF Cases Reported

NETHERLANDS

Tourists, Immigrants Bring in Tropical Diseases
(Dinke van Damme; ELESVIERS MAGAZINE, 24 Sep 83)..... 28

PEOPLE'S REPUBLIC OF CHINA

Nutritional Bio-Geochemical Etiology of Keshan Disease
(Su Yin, Yu Wei-han; CHINESE MEDICAL JOURNAL, No 8,
Aug 83)..... 31

PHILIPPINES

Briefs
Gastroenteritis Deaths in Cebu 34

VIETNAM

Hemorrhagic Fever Epidemic Reported in Hanoi
(NHAN DAN, 8 Sep 83)..... 31

ZIMBABWE

Measles Epidemic Puts Pressure on Health Services
(THE HERALD, 9 Sep 83)..... 36

ANIMAL DISEASES

INDONESIA

Foot-and-Mouth Disease Threatens All of Java
(KOMPAS, 3 Sep 83)..... 37

Cause of Outbreak of Foot-and-Mouth Disease Detailed
(KOMPAS, 7 Sep 83)..... 39

President Orders Mass Vaccination of Cattle
(HARIAN UMUM AB, 8 Sep 83)..... 41

All Cattle in Java To Be Vaccinated
(HARIAN UMUM AB, 7 Sep 84)..... 43

Cattlemen Lose 100 Billion Rupiahs Annually Due to Cattle
Diseases
(HARIAN UMUM AB, 9 Sep 83)..... 45

SOUTH AFRICA

Briefs
Kwazulu Blamed for Rabies Epidemic 47

ZAMBIA

Briefs
Rinderpest Vaccination Allocation 48
Tsetse Fly Control Measures Ordered 48

ZIMBABWE

Briefs
Dog Disease Spreading Again 49

PLANT DISEASES AND INSECT PESTS

AUSTRALIA

Researchers May Have Key to Disease-Resistant Crops
(THE WEST AUSTRALIAN, 7 Sep 83)..... 50

BARBADOS

Briefs
Anti-Smut Drive 51

CHAD

Briefs

Bol Crop Damage 52

ETHIOPIA

Briefs

Pest Control Seminar 53

PAKISTAN

Briefs

Severe Locust Infestation Reported 54

PHILIPPINES

Locust Outbreaks Hit Many Areas
(BULLETIN TODAY, 1, 2 Oct 83)..... 55

Studies on Locusts Infestations
Locust Infestation Spreads

TANZANIA

Grain Shortage in Drums Reportedly Effective Against Grain
Borer
(DAILY NEWS, 1 Oct 83)..... 57

VIETNAM

Briefs

Rice Pests Affect SRV Crop 58
Warning Issued on Armyworms, Planthoppers 58
Hau Giang Pest Control 58

FLU EPIDEMIC WIDESPREAD, HITS HARDEST IN NEW SOUTH WALES

Sydney THE AUSTRALIAN in English 31 Aug 83 p 3

[Article by Sue Cook]

[Text]

AN EPIDEMIC of a particularly virulent form of the flu has kept a record number of people away from work for up to two weeks.

Although other States have recorded outbreaks of flu and a severe respiratory virus this year, the epidemic seems concentrated in NSW.

The executive director of the Sydney Chamber of Commerce, Mr David Abba, said yesterday absenteeism had been running at up to 9 per cent for the past six to eight weeks.

This was double the usual rate and 3-4 four per cent above that for last winter.

"The average time off for the flu is about one to 1½ weeks, but some people are off for as long as two weeks," Mr Abba said.

The president of the Royal Australian College of General Practitioners, Dr Richard Finch, said there had been a "big epidemic" in NSW.

"My impression, because we don't have any figures, is that we are having more pneumonia," he said.

Pneumonia was seen in any flu epidemic but the number of cases seemed to be greater than with previous outbreaks.

However, the director of the NSW Institute of Public Health and Biological Sciences, Dr Allan Crawford, said

a "couple of per cent" had to be deducted from the chamber of commerce's absenteeism figure to take into account people taking "sickies" and those with the common cold.

"People like to say they have the flu when all they have is the common cold because it sounds better," he said.

The strain this year was Philippines 1, which was what had been expected and so it had been included in the vaccination make-up.

The acting medical director of Fairfield Hospital, Melbourne, Dr Hugh Newton-John, said there had not been much flu in his State.

The Commonwealth Medical Officer in Hobart, Dr Jim Frost, said there was a mild dose of flu "going around".

A medical spokesman from the West Australian Department of Public Health said there had been a moderate amount of flu in scattered areas causing absenteeism but it had not been as bad as in previous years.

The Director of Environmental and Occupational Health in Queensland, Dr Ron Ram, said two types of flu had been observed in his State - India A, a variant of Russian flu, and Philippines A, a variant of Hong Kong flu.

BRIEFS

SAIDPUR DIARRHEA DEATHS--Saidpur, Sept 7--Diarrhoeal diseases claimed another four lives in Saidpur Upa-zilla today raising the total to nine during the last 20 days. The local health officer however confirmed only six deaths so far in the Saidpur pourasava and Botlagari union parishad areas. These areas were ravaged by flood during July. The health authorities are taking necessary measures. [Text] [Dhaka THE BANGLADESH TIMES in English 8 Sep 83 p 8]

NILPHAMARI CHOLERA DEATHS--Nilphamari, Sept 22--Twentyfour persons died of cholera in three thanas and upa-zillas of the subdivision--Saidpur, Domar and Nilphamari in last 20 days. Cholera broke out in epidemic form in these areas affected by heavy flood. The Thana Nirbahi Officer of Domar upa-zilla confirmed the death of three persons of Gomnati and Pongan Atukpur Union. However, the local source put the death figure of the two unions at five and said that 33 persons were attacked by cholera in last three days. [Text] [Dhaka THE NEW NATION in English 23 Sep 83 pp 1, 8]

MORE DIARRHEA DEATHS--Chandpur, Sept. 23--During the last one week one woman and three children died of diarrhoeal disease at Majumder Bari of village Baniacho under upazilla Hajiganj. The name of the woman is Mrs Amanullah Majumder (35) and that of the child is Suman (2), son of Mr Abul Kalam Majumder. Names of the other two children could not be known. At the same home about twenty more persons were attacked by diarrhoeal disease, said the family source. [Text] [Dhaka THE NEW NATION in English 24 Sep 83 p 2]

BRAHMANBARIA CHOLERA DEATHS--Brahmanbaria, Sept 24--Eleven persons died of cholera in five villages under Majlishpur Union of Brahmanbaria police station during the last one week. Cholera broke out in epidemic form in these areas during the last week. When contacted the Deputy Civil Surgeon Brahmanbaria told the correspondent that strong diarrhoea diseases prevailed in the area and confirm the death of three persons of Dharna village and attack of 12 persons in the village. Local source put the death figure at one union at eleven and said that 30 persons were attacked by cholera during the last week. [Text] [Dhaka THE NEW NATION in English 25 Sep 83 p 1]

CSO: 5400/7011

BRIEFS

HEPATITIS SPREADING--Dr Willy Carrillo Angula, chief of the Health Ministry's Epidemiological Investigations Department, has said that the number of hepatitis cases in the country has grown considerably. Carrillo Angulo said that the increased cases of endemic hepatitis in the first 6 months of the year indicate that 1983 will have the highest rate registered since 1971. He added that during the first 6 months of the year 2,373 cases were reported, a rate of 102.9 cases per 100,000 inhabitants for the entire country. Carrillo also pointed out that the most affected area is Huetar Norte, with a rate of 152 cases per 100,000 inhabitants. The age group most affected is between 1 and 14 years. [Summary] [PA031526 San Jose LA PRENSA LIBRE in Spanish 22 Sep 83 p 2 PA]

MALARIA UNDER CONTROL--No more malaria cases have been reported in the past 5 days, which means that the outbreak has been controlled. As of 30 September, 199 cases had been reported. A large percentage of these cases had originated abroad, as in many cases the persons affected had entered the country through the northern border, according to Dr Jose Luis Garces, chief of the Health Ministry's department in charge of fighting malaria. [Excerpt] [PA071910 San Jose Radio Reloj in Spanish 1200 GMT 6 Oct 83 PA]

CSO: 5400/2007

DENMARK

DEATH TOLL FROM AIDS NOW STANDS AT SEVEN

Copenhagen BERLINGSKE TIDENDE in Danish 22 Sep 83 p 6

/Text/ Since 1980, seven Danish men have died of the disease known as AIDS, which occurs especially among homosexual men, but the infectiousness of the disease seems to be very low and it possibly occurs predominantly among people whose immunity systems, which are attacked by the disease, had been weakened beforehand.

The National Serum Institute has provided a status report on the disease, 2,259 cases of which have been registered in the United States, with 41 percent of the AIDS patients having died. There have been 12 cases, plus some suspected cases, in Denmark up to the present. Seven patients have died of the infection or a rare form of cancer known as Kaposi's sarcoma. Eleven of the 12 were homosexuals, 6 had had sexual contact with U.S. citizens and 3 had had a sexual partner who had had sexual contact with acquaintances in the United States. One had gone to a sauna in Hamburg and one had had nonhomosexual relations with residents of Central Africa.

The report here indicates that 71 percent of those hit by the disease are homosexual men and 17 percent took narcotics by injection and became infected through their blood. In Europe, 59 cases have been discovered in France, 24 in West Germany and 21 in Belgium, where most of the patients, by far, have had contact with residents of Zaire. It has not been possible to observe an increase in Denmark such as has occurred in the United States, where 48 percent of the cases were discovered in 1983.

9266

CSO: 5400/2501

BRIEFS

NEW HOSPITAL IN SANTA TECLA--In a ceremony presided over by the president of the republic, Alvaro Magana, new and modern installations of the San Rafael Hospital in the city of Tecla were inaugurated. This beautiful architectural complex was constructed at a cost of 8 million colons underwritten by the Walter Soudy Foundation and is being built in the area south of the central hospital. The modern section which will complement the services of the San Rafael Hospital is located in the interior of the medical center property and consists of an ample hospital building of 5 stories all of which have equipment necessary for an efficient discharge of their humanitarian labors. It was built for the specific purpose of meeting the medical needs of many patients, as much from Santa Tecla as from the majority of the towns of La Libertad Department. The building has room for 400 beds. Each floor has rooms allotted to paramedical personnel. It has two wings connected by a central lobby. It has 2 special hoists for moving patients from one place to another; a laundry, food transport facilities, aseptic usage and other necessities. [Text] [San Salvador DIARIO LATINO in Spanish 16 Sep 83 pp 3, 14] 9678

CSO: 5400/2001

BRIEFS

VACCINATION CAMPAIGN STRATEGY--AWASSA (ENA)--A meeting attended by health professionals from Addis Ababa and from Shoa and Sidamo regions as well as from the Ministry of Health has charted out an appropriate strategy for the year 1976 Ethiopian calendar year after assessing the vaccination campaign against six diseases carried out in 16 towns of Sidamo region. The meeting, which was held at the auditorium of the regional health office, was attended by Comrade Desta Asfaw, First Deputy Administrator of Sidamo region, Comrade Bahri Gebre-Meskel, Head of COPWE Youth Affairs for Sidamo region, as well as representatives of government and mass organizations. The report compiled by the team of health professionals revealed that the vaccination campaign had encountered problems because of the reluctance of some mothers to have themselves or their children vaccinated. The report, therefore, urged health professionals to exert every effort to educate the broad masses on the advantages of vaccination by taking measures in collaboration with mass organizations. Comrade Desta Asfaw, reminded the health professionals on the occasion that, in line with the resolution of the Second COPWE Congress, the vaccination campaign against the six diseases must be conducted cooperatively with government and mass organizations in order that citizens would be kept healthy and raise their productivity. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 27 Sep 83 p 6]

MALARIA CONTROL IN GONDAR--GONDAR (ENA)--The malaria control programme office of Gondar region has protected 345,611 people from Malaria infection by spraying 108,220 dwellings in an anti-malaria campaign conducted in 1975 Ethiopian calendar year. The office also disclosed that it had distributed a total of 353,308 pills to 120,860 people suffering from malaria during the campaign. Comrade Araya Aregawi, Head of the Regional Malaria Control Centre, revealed that the campaign was conducted during the months of January, February, June and July of 1983 in which the local populace actively participated. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 28 Sep 83 p 5]

CSO: 5400/13

GUATEMALA

BRIEFS

POLIO CASES REPORTED--Quarantine has been declared in the village of La Palma, Coatepeque jurisdiction, Quetzaltenango Department, because of an outbreak of polio. The health authorities have begun precautionary measures and have quarantined surrounding areas. [Summary] [Guatemala City Radio Nuevo Mundo in Spanish 1200 GMT 4 Oct 83 PA]

CSO: 5400/2006

BRIEFS

INDIAN ILLNESSES INVESTIGATED--A medical team from Manuel de Jesus Subirana Hospital in Yoro, headed by Dr Jaime Lopez Rivera, director of that center, Dr Marlin de Miranda and Eng Amilcar Miranda, head of the Indian project, visited the Jicarito tribe 2 and 3 September in view of the alarming report that the Indian population was dying of acute gastroenteritis. Notwithstanding the advance information and the quick trip of the team, they were able to verify that the major problem facing this Indian population is malnutrition and intestinal parasites. Also the finality with which the Yoro governmental authorities view the problem of access roads to the tribes is well known. It is mentioned constantly that the Xicaques tribes suffer from tuberculosis, anemia and malnutrition, but those responsible do very little in the way of providing access roads to these people. Or what would be more practical would be for the Indians to move closer to the hospital of the community. Would that the authorities in charge of roads think about the many problems which beset the Xicaques Indians and consolidate their efforts to better the standard of living of our compatriots of Yoro. [Text] [San Pedro Sula LA PRENSA in Spanish 12 Sep 83 p 13] 9678

CSO: 5400/2000

TOLL MOUNTS IN UTTAR PRADESH MYSTERY DISEASE

Madras THE HINDU in English 6 Oct 83 p 6

[Text] LUCKNOW, Oct. 5--The mysterious disease which has claimed over 200 lives within one month in Shahjehanpur district still remains unidentified. Death reports continue to pour in despite the belated medical drive launched by the State Health Department.

The Director of U.P.'s Medical Health Services, Dr. B. B. Mathur, after a day's visit to Shahjehanpur on Tuesday appeared confused about the identity of the disease. He told newsmen that the deaths could be attributed to chronic malaria, dengue or gastroenteritis. The cause of the disease could not be ascertained. A team of doctors, from the Medical Health Department, experts from K.G. Medical College, Lucknow and the Indian Veterinary Research Institute (IVRI) had also been sent for an on-the-spot survey in the epidemic-hit areas.

The State Health Minister, Mr. Lokpati Tripathi told newsmen that 96 deaths had been confirmed so far. The District Magistrate of Shahjehanpur, however, in a communication to the State Government a few days ago had sent a list of 176 persons.

The Minister of State for Agriculture, Mr. Ram Rattan Singh had in a report to the Chief Minister recently claimed that 250 persons had died of the unidentified viral disease. According to Mr. Singh the victims belonged to about 29 villages of the district. In a single village, Parsona, 53 persons had died.

"Indifference": The symptoms are stated to be high fever, inflammed limbs and twitched neck. The victims died in about five days. Incidentally the areas afflicted by this disease are reported to be surrounded by flood waters.

The Medical Health Department machinery was activised only after the Chief Minister, Mr. Sripat Mishra pulled up the officials following reports from Mr. Rattan Singh. The District medical outfit in Shahjehanpur was indifferent and failed to apprise the State headquarters of the situation. The State machinery did not move even after the District Magistrate spoke to the additional Director of Medical Health and complained about the negligence by the Medical Health Department.

An enquiry is now being held by the additional Director of Medical Health.

CSO: 5400/7023

PLAGUE REAPPEARS IN SIMLA AFTER 17 YEARS

Calcutta THE STATESMAN in English 1 Oct 83 p 10

[Text] ROHRU (Himachal), Sept. 30--Despite various preventive measures, fear grips parts of Rohru tehsil of Simla district where a plague has reappeared after 17 years, reports UNI.

The disease, which claimed 18 lives, including six women and three children, in five villages--Tangnu, Deodi, Guma, Jabbal and Khabbal--has been confirmed as a plague by a team of doctors which visited the affected area.

The disease made its first appearance in the area in 1958, took a toll of 40 lives and again in 1966 killing eight.

While no death has been reported since September 20, the entire area was under "active surveillance", according to an official spokesman here.

Medical teams of the State Health Department were battling to save the 5000-odd population in the five plague-infected villages and 10 other nearby villages scattered on both sides of the Pabar nullah in the backward area.

Spraying operations were in full swing to disinfect the entire area and nine of the 15 villages had so far been completely sprayed. Besides, 850 people had been vaccinated. An SOS had also been sent to Hapkin Institute, Bombay, for more supplies of the anti-plague vaccine.

Chemo-prophylaxis and other medicines were being administered as a preventive measure, according to the Simla chief medical officer, who is heading a team of doctors in the area.

The State Health Department Director, Dr Jagdish Chand Sharma, personally supervised the anti-plague operations. He was accompanied by the Health Assistant Director, Dr S. S. Sooch and epidemiologist, Dr J. K. Kakkar.

There are conflicting views over the immediate factors responsible for the re-appearance of the plague. While some villagers had confirmed in private that the consumption of cooked wild rat meat by a Harijan family of Tangnu village had led to the reappearance of the disease, doctors did not subscribe to this view

However, they felt that the plague in the area had been caused by rat flea bite.

As the villagers were mainly agriculture labourers, they felt that one of the victims might have got a flea bite in the field.

The department had decided to keep a close watch on the growth of rat flea in the area as the disease was "cyclic." The health education programme in the area has also been geared up.

CSO: 5400/7020

STEPS TAKEN AGAINST PLAGUE IN HIMACHAL PRADESH

New Delhi PATRIOT in English 24 Sep 83 p 4

[Text] SIMLA, Sept 23 (PTI)--Tissues from victims of a mysterious disease that is suspected to be plague have been rushed to Kasauli Institute and the National Institute of Communicable Disease in Delhi for analysis.

Eighteen persons have so far died in Chirgaon of Rohru subdivision in Simla district since the disease broke out on 1 September. It was diagnosed to be virus--pneumonia but medical officials have not ruled out plague as cause of the deaths.

They are anxiously awaiting the results of analysis of tissue specimen sent to Delhi and Kasauli.

Special experts from Himachal Medical College, the State Health Department, the National Institute of Communicable Diseases and Post Graduate Institute, Chandigarh, are carrying out entomological studies.

The Health Department, which has set up a special centre at Rohru, has also decided to use All India Radio, Simla, for broadcasting to the people and informing them on necessary steps, which should be taken in case of any emergency.

The village folk of certain areas of Rohru are stated to consume cooked rodents, according to an official who returned here, after visiting the affected areas.

A little over a decade ago the plague had broken out in the same area, the official said.

In the meanwhile, the Himachal Government machinery has been geared to combat the mystery disease in Rohru tehsil in the State.

Giving this information yesterday, Chief Minister Virbhadra Singh said 1,300 doses of a special vaccine will be flown in from Bombay and rushed to the affected areas to inoculate the people against the disease. Medical teams have already left for the area.

The State Red Cross and the Mineral and Industrial Development Corporation (MIDC) have donated Rs 5 thousand each for providing food to the affected families.

The Chief Minister has conveyed sympathies to the bereaved families and assured the people that the Government would leave no stone unturned to control the disease and provide relief to the affected families.

The Simla District Health Officer has been camping at Rohru to coordinate efforts of various teams and departments engaged in combating the disease.

CSO: 5400/7016

DENGUE, VIRAL FEVER EPIDEMICS IN DELHI

New Delhi PATRIOT in English 29 Sep 83 p 10

[Text] Malaria dengue and viral fever continue to stalk the city and its outskirts in all their fury, though municipal authorities would without statistics, try to paint a picture as rosy as your garden.

For doctors in the larger government hospitals and in private practice stress that both these ailments are on in full swing.

Viral fever private doctors aver has taken on epidemic proportions more serious than the one that struck last year at the onset of the monsoon.

While the doctors at the Sardarjung Hospital and All-India Institute of Medical Sciences believe that the fevers of the two years, differ in symptoms, they do agree that the affliction is more acute this year in terms of numbers.

Last year, the fever of the patient would shoot up to over 105 degree together with severe bouts of shivering which brought doctors to conclude that it was dengue, caused by aedis aegypti mosquito.

This year, though the fever range in lower between 103 and 105 degrees more people are suffering.

Out of every 100 patients that we treat an old general practitioner of Hauz Khas said, at least seventy come with symptoms of viral fever--temperature, a slight headache, heaviness and pain in the eyes, body-ache and general debility. The severe shivering is almost non-existent.

Not many of the average cases of viral fever report to hospitals, unless they have other more serious ailments bothering them. It is to the private or neighbourhood doctors that most patients go to, in search of medication.

Treatment

There is not very much we can do for them, lamented a private doctor in Karol Bagh. We prescribe an analgetic, multi-vitamins and advise rest. It cures in about five to seven days, though the weakness and debility may continue for over two weeks.

While the larger hospitals have facilities for malaria or dengue detection in the form of blood tests private practitioners say that many times they have to depend on just guess work and experience as to a patient's illness.

The municipal authorities claim that malaria (dengue) and viral fever are on the decline. The level of incidence, they say without quoting any figures to support their claim, is less than last year's during the corresponding period.

Till two months ago, however, the municipal authorities had admitted that malaria/dengue cases reported were higher than last year. In a bid to clear any doubts about viral fever or malaria incidence, they soothingly add, 'Well, you see, this is the season for fevers it cannot be wished away completely.

CSO: 5400/7018

BRIEFS

CHOLERA IN GUJARAT--Cholera, which spread from Thane district of Maharashtra, has claimed five lives in Umbargaon taluka of Bulsar district last month, the Gujarat minister of state for health, Mrs. Kokila Vyas, told the assembly on Friday, reports PTI. She said that 22 of the 49 cases treated at Sanjan were from Thane district. [Text] [Bombay THE TIMES OF INDIA in English 10 Sep 83 p 15]

MORE CHOLERA DEATHS--At least seven people have died of cholera in the flood affected Bari-Derabasi block of the Jaipur sub-division of Cuttack district, according to the Janata MLA from the constituency, Mr. Srikanta Jena, reports our staff correspondent. Orissa's minister for revenue, Mr. Upendra Dixit, however, denied the claim on Friday, saying five people had died of diarrhoea following the floods. On his return from a tour of the affected areas, Mr. Jena said in a statement that the cholera deaths had occurred at Mahakalupara, Routsahi, Baliapal, Aurangabad and Seravue villages in the block. He alleged that only one medical officer was functioning in the area, although three posts had been sanctioned for the local health centre. [Text] [Bombay THE TIMES OF INDIA in English 18 Sep 83 p 7]

GASTROENTERITIS IN THANE--Thane, September 18--Even as gastro-enteritis cases in the district are said to be on the decline, reports of some fresh attacks are being received from the interior. Seventeen such cases were reported from Chigaon and Khanivli villages in Palghar taluka last week, according to reliable report received here. So far two persons have died in Shigaon and 15 in Khanivli and most of the victims were children, the report said. Mr. N. G. Dalbi, sub-divisional officer and Mr. S. L. Kharpade, district health officer, have rushed to the affected area. Bhayandar and Navghar areas also reported at least three cases of gastro-enteritis and one person reportedly died. An unconfirmed report from Sahapur taluka said a cholera case was detected at Ratandhale village. Five villages of the taluka were affected by gastro-enteritis. So far, over 3,000 people have been inoculated. [Text] [Bombay THE TIMES OF INDIA in English 19 Sep 83 p 5]

GASTROENTERITIS SUFFERERS--About 70,000 people of 88 villages in the Islampur sub-division of West Dinajpur are suffering from gastro-enteritis, according to information reaching Writers' Buildings on Wednesday. Till

now, 44 people have died of the disease there. According to a State Government Press release issued during the day 88,000 people have been inoculated and 1,079 wells disinfected. A team of medical officers from the National Institute of Cholera and Enteric Diseases has already gone there to find out the causes for the outbreak of the disease. [Text] [Calcutta THE STATESMAN in English 22 Sep 83 p 3]

CHOLERA IN DINAJPUR--At least 10 people died of cholera in the Islampur area of West Dinajpur during the past three days. While the disease spread in the wake of the floods and claimed 12 lives in different parts of Jalpaiguri and Cooch Behar, its outbreak in Islampur was caused apparently by contamination of water from other sources, Dr Sitesh Lahiri, Director of Health Services of the West Bengal Government, said in Calcutta on Sunday. According to him, the disease had been contained in Islampur. The Chief Medical Officer of West Dinajpur informed Dr Lahiri last weekend that precautionary steps had been taken to prevent recurrence of the disease in the area. Dr Lahiri, who could not give the exact number of deaths in Islampur, however, said that the toll would be more than 10. Nor was he able to say, as it was a holiday, whether the toll had increased at Birpara in the Dooars of Jalpaiguri district. Till Saturday, 11 people were reported to have died of the disease at Birpara. Another death had been reported from Sukatabari of the Sadar sub-division of Cooch Behar. Dr Lahiri said that the CMO of Jalpaiguri had been asked to inform the Government of additional material necessary to check the spread of the disease. Our Jalpaiguri Correspondent adds: The death of 11 people in and around the Birpara area in the Dooars of Jalpaiguri was not due to the cholera but to gastro-enteritis and bacillary dysentery, according to the Chief Medical Officer of Jalpaiguri. [Text] [Calcutta THE STATESMAN in English 19 Sep 83 p 3]

GASTROENTERITIS IN SIMLA--Simla, Sept 21 (PTI)--Twentyone persons have lost their lives so far and four others are in a serious condition in Rohru and Rampur tehsils of Simla district due to the outbreak of virus-pneumonia and gastro-enteritis since 1 September. Five persons died of gastro-enteritis in Dhansa panchayat of Rampur tehsil in the last 48 hours, according to deputy commissioner Mohindra Lall. Meanwhile with 10 more deaths being reported from Chargaon in Rohru yesterday, the toll has touched the 16 mark, Mr. Mohindra Lall said. The disease claimed six lives on 1 September from the same tehsil. The disease involving chest pain, and vomiting of blood has been diagnosed as virus pneumonia by a team of experts from here and Kasauli. The doctors have yet to determine the cause of the outbreak of the disease. [Text] [New Delhi PATRIOT in English 22 Sep 83 p 10]

KALA-AZAR IN BIHAR--SITAMARHI, Sept 23--Kala Azar has claimed 46 lives at Charaut--a Harijan village--under Pupri block in Stamarhi district during last one month, according to district magistrate of Sitamarhi Ashok Kumar Sinha. Mr Sinha, who visited the village, told newsmen that there were about 100 seizures since the disease broke out in an epidemic form. A medical team has been rushed there to provide medical aid to the victims. Free ration had also been distributed among the the Harijan families, he said. [New Delhi PATRIOT in English 24 Sep 83 p 5]

CHOLERA IN JALPAIGURI--JALPAIGURI, Sept. 30 (PTI)--At least 65 people have died of cholera and diarrhoea in several parts of Jalpaiguri district in the past two months. A Health department spokesman said here today that the ailments were in "virulent" form in Sadar Oal, Dhuguri and Madarihat blocks where number of seizures reported so far was high. More than 500 people were admitted to various hospitals. The district administration has already taken preventive measures and rushed a medical team to the affected areas, the spokesman said. [New Delhi PATRIOT in English 1 Oct 83 p 4]

MYSTERY DISEASE DEATHS--Kohima Oct 2 --Eleven children of Sighama village in northern Angami have died of an unknown disease, having symptoms of measles, over the past month, reports UNI. The former Nagaland Speaker, Mr K. V. Kreditsu, said the disease had killed 23 persons in the Tophema area last June. Mr Kreditsu said that the local doctors had been working hard to arrest the spread of the disease. [Calcutta THE STATESMAN in English 3 Oct 83 p 9]

CHOLERA IN WEST DINAJPUR--Fifty-two persons have so far died of cholera in West Dinajpur district following contamination of major drinking water sources. Official sources said in Calcutta on Wednesday that large areas had been inundated during the monsoon this year, polluting waters of the wells and tanks. About 550 persons were attacked by the disease. The State Government has sanctioned Rs 16 lakhs for disinfecting the water sources and sinking new wells in the district. [Calcutta THE STATESMAN in English 6 Oct 83 p 3]

MYSTERIOUS EYE DISEASE--HOWRAH, Sept. 27--Sixty km away from Calcutta, nestle the three villages of Ramchandrapur, Dipmalita and Khajuti, in this district, remarkable only for their inconspicuousness, but today are in the grip of a terrifying eye disease that has afflicted nearly 85 children so far, reports PTI. Official sources said here today, abnormal protrusion of the retina, appearance of pearl-like white spots around the eye ball, myopia and total blindness with the onset of night are the symptoms of the disease varying from child to child. Emaciated, rickety, undernourished, the children, ranging from three months to 12 years, live in ramshackle shanties and are a commentary on the horrors of poverty. Almost all the victims complained of total night blindness forcing them to grope in the dark until the pall of sleep temporarily relieved their agony. The district magistrate, Mr Kalyam Bagchi, sent a team of observee to the villages. A medical team will be despatched immediately to study the cause of the disease, Mr Bagchi told reporters. [Calcutta THE STATESMAN in English 26 Sep 83 p 9]

CHOLERA 'EPIDEMIC AREAS'--SILCHAR, Sept. 29--The entire Cachar district in southern Assam has been declared an "epidemic area" following the death of 16 people in cholera in the past few days, according to official sources here, reports PTI. The district administration yesterday ordered mass inoculation and imposed a ban on the sale of cut fruits, exposed sweets and rotten fish. The disease claimed 12 lives in Algapur areas in Silchar sub-division, while four more deaths were reported from the Katigorah block adjoining Bangladesh. Sources said that medical teams, drawn from the district medical office and Silchar Medical College Hospital, had been send to the affected areas. At least 13 people, including some children, died of gastroenteritis at Asotoli tea garden in Golaghat sub-division in Upper Assam during the past few days, according to official sources. The sources said the condition of some of another 150 people suffering from the disease was stated to be critical. [Calcutta THE STATESMAN in English 30 Sep 83 p 7]

INDONESIA

BRIEFS

ANTHRAX OUTBREAK--Jakarta, 19 Oct (AFP)--Six more people died of suspected anthrax in two villages of Oksibil District, Jayawijaya Regency, last week bringing the total deaths feared related to the disease in the district in the last four months to 220, the evening newspaper SINAR HARAPAN reported today. The deaths started to occur in the district last July, and were believed to be as a result of victims having eaten pigs which had died of anthrax, the paper quoted a local official as reporting. [Text] [Hong Kong AFP in English 1129 GMT 19 Oct 83 BK]

CSO: 5400/4317

SHORTAGE OF DRUGS HAVING IMPACT ON PUBLIC HEALTH

Kingston THE DAILY GLEANER in English 12 Aug 83 pp 1, 22

[Text] The non-availability of some drugs and the cost of drugs generally, have been of concern to consumers and people in the industry and now the situation has been aggravated by the shift of some drugs from the official to the parallel market rate of exchange.

Some see the situation as frightening in light of its consequences on the health of the nation but at the same time efforts are being made to stabilise it and keep price increases at the minimum.

With the introduction of the consumer "hotlines" on Monday, consumers have an opportunity to report cases of what they see as overcharging to the Consumer Protection Division of the Ministry of Industry and Commerce which will investigate and where possible, institute a rolling back of prices.

The Jamaica Commodity Trading Company, the Government's purchasing and monitoring agency, which has responsibility for the importation of the Basic Needs Basket of Drugs for both the public and private sectors, has developed a purchasing and pricing mechanism aimed at keeping prices at a reasonable level.

Complaints have been mounting and against this background Mr Paul Ellis, Deputy Managing Director of the JCTC, has attempted to clarify the pricing mechanism and its role in reducing the effects of price increases. He has emphasised that the company has tried to get the best prices without sacrificing quality.

The company, he said, has insisted that all imports conform with international standards, meet local requirements of the Food and Drug Act of Jamaica and be registered with the Ministry of Health.

The company purchases drugs from well-established brand-name companies and from reliable generic ones in the United States, Canada and Europe. The generic companies market their drugs based on the chemical ingredients and do not normally go to the added expense of marketing under a brand name. As a result, generic drugs are normally available at lower prices.

Mr Ellis said though that certain drugs could be retailed at lower prices than the generic equivalents imported by the company, pointing out that they tried to maintain for as long as was possible, stable prices across the board, despite the fact that the c.i.f. (cost, insurance, freight), prices of some of the essential preparations had been increasing. The latter, he said, had been achieved by the establishment of a system of internal subsidies on the more critical preparations.

Consequently, subsidies were generated from mark-ups on other less-costly pharmaceutical products. This, as well as the company's determination to maintain standards, might account for the claim by some distributors that they could import a particular drug at a lower price than the JCTC.

The JCTC, he said, still had to purchase some products from brand-name companies because these were patented and were of a sophisticated level.

He said he was encouraging members of the public to request both their doctors and pharmacists to prescribe and dispense the generic form where possible, in order that they might be able to afford the cost of the prescription. He gave an assurance that the generic products were of the same chemical nature as the branded ones and were equally effective and of similar standard.

He gave a breakdown of some essential drugs imported by the company with the prices at which they would be retailed if there were no subsidy and the estimated prices at which they should currently be retailed based on the subsidy from JCTC.

For insulin, a drug commonly used by diabetics, the prices of the 10-miligram vial of insulin soluble (beef), vary from \$17.30 to \$13.18; insulin soluble (pork) of the same size, \$13.17 to \$8.13. For the insulin zinc suspension (beef) it is \$13.78 to \$5.63 and for insulin zinc suspension (pork), it is \$17.50 to \$5.07. For Clinitest, a diagnostic reagent principally used by diabetics, the 500-pack size goes for \$114.47 to \$91.88.

The price of Clinoril, an analgesic and anti-inflammatory agent used for arthritis, for the 200-miligram container is \$123.51 to \$110.88 while Brinerdin, an anti-hypertensive agent, goes for \$38.75 to \$28.44.

A check by the Gleaner with some drug distributors revealed their concern about the repercussions of the increases on people's health, as some patients would not be able to afford the price of the drugs. They pointed to a possible increased demand on the public sector pharmacies as the prices get higher.

Referring to the effect of the availability of drugs, one distributor pointed out that with a reduction in companies' cash-flow because of the amount needed to pay for U.S. dollars, the companies would not be able to buy as much drugs as before. He observed that there was nothing that could be done as there were increased costs in purchasing the U.S. dollars and paying for duty so it was inevitable that prices would go up.

One other described the situation as frightening, stating that the prices being paid for drugs were staggering. He too, pointed to the price at which the U.S. dollar was purchased, the problem with the uncertainty about what rate would be used to pay for goods now being sold and to the fact that they were out of quota. It was expected that sales would drop, thereby delaying the shortage, he said.

CSO: 5400/7506

BLOOD DONATIONS DECLINE PUBLIC FEAR OF AIDS CITED

Kingston THE DAILY GLEANER in English 28 Sep 83 p 1

[Text]

Public hysteria about AIDS (Acquired Immune Deficiency Syndrome) has caused "a dramatic fall-off" in the blood donation to the central Blood Bank on Slipe Pen Road in Kingston during this month.

But, Health Minister the Hon. Dr. Kenneth Baugh, who disclosed this information at the Bank yesterday morning dismissed what he termed the "AIDS hysteria" as "totally unfounded." The Minister, a medical doctor, emphasized that "donors are not at risk in contracting the disease...there is absolutely no risk."

Dr. Baugh was launching a blood collection drive by the Lodge Semper Fidelis No. 1530 S. S. Masonic Temple at the Blood Bank, the largest blood collection centre in the island. He donated a pint of blood to mark the launching. Dr. Baugh pleaded with Jamaicans to continue donating blood, and praised the Masonic Temple along with the Blood Bank Association for the work they were doing to improve the blood intake of the bank.

The Blood Bank had an average monthly intake of 1,500 to 2,000 pints of blood during this year up to September. Commenting on the September intake the Minister said: "Some days the Blood Bank is virtually empty."

"The public must understand that AIDS is not transmitted by casual contact," Dr. Baugh continued.

New precautionary measures at the Bank were also announced. Dr. Grace Haynes, the director of the Bank said that there were in place at the institution, the facilities and the trained personnel for the diagnosis of the disease. She added that "intensive screening" to detect homosexuals and other high risk groups was taking place at the Bank.

OTHER RECENT DEVELOPMENTS at the Blood Bank were also mentioned. With the establishment of an Immunology Department the Bank was making its own blood components for the treatment of special diseases like haemophilia. The Bank had also reached the stage where it could identify various blood types, and isolate its own fresh frozen plasma, platelets, red cell concentrate, and antisera.

Asked by the **Gleaner** the number of blood components now being imported from the United States (where most cases of the disease have been detected), and the consequent risk factor, the Minister said that only blood concentrate was now being imported to treat haemophilia. Jamaica, he said, was unable to produce its own because of cost factors and the lack of technology to produce this substance even in the medium range. He explained however that there would have been no need for this importation if there were enough donors to provide enough blood.

Still on the question of risk, Dr. Baugh explained that among the 2,000 cases detected world-wide in "rare instances" was it caused by blood transfusion. He said that this was because in the United States thousands of pints of blood from various individuals were pooled together and prepared for the treatment of haemophiliacs. Besides, he added, the recent pasteurization process of blood killed many viruses, and as AIDS was believed to be caused by a virus, this further decrease the risk factor.

IN MAKING A FURTHER PLEA for blood donation, the Minister listed several blood collection centres island-wide to which donors could make their contribution. At the University Hospital, the average monthly intake was around 250-300 pints; in Montego Bay it varied from 100 to 250 pints; while there were other centres in Port Antonio, Mandeville, and St. Ann's Bay, the Minister said. He also said there were plans to regionalize the operations of the centres to make Jamaica less dependent on the Blood Bank.

The first case of the disease recognized in Jamaica was announced last week by the Minister. It is that of a male patient who was living in the U.S.A. for 10 years and who had returned to Jamaica with the disease.

CSO: 5400/7506

BRIEFS

CHOLERA OUTBREAK IN MAPUTO--About 300 persons are currently hospitalized as a result of a cholera outbreak which struck Maputo over the past weeks. In an interview with our reporters, the director of the Center for Disease Prevention and Medical Investigations, Oscar Monteiro, said that more than 100 of those cases had already been confirmed in laboratories. Oscar Monteiro also said that the first cholera cases in Maputo had originated in some districts of Gaza Province, particularly in Chibuto and Manjacaze. Many of the cases which broke out later came from the Machava Central Prison, where a big epidemic outbreak took place, Oscar Monteiro added. In the meantime, some preventive measures have already been taken. Thus, health brigades are examining and disinfecting the houses of the hospitalized patients as well as giving the public lessons on hygiene. [Text] [MB161234 Maputo Domestic Service in Portuguese 0800 GMT 15 Oct 83]

CSO: 5400/14

PLAGUE REPORTEDLY TRACED TO OVAMBO WAR ZONE

One Death Reported

Johannesburg RAND DAILY MAIL in English 15 Sep 83 p 3

[Article by Tony Weaver]

[Text] Windhoek--Twenty-five cases of bubonic plague and one death have already been reported this month in South West Africa's most densely populated area, housing a quarter of the total 1 million population.

The 30km strip between Oshakati and Ondangwa in the Ovambo war zone, where 250 000 people live, often in squalid squatter camps, was yesterday revealed as being the breeding ground for the dreaded disease.

Dr A. Hitzeroth, deputy director for National Health, and responsible for environmental health in the territory, said yesterday: "The situation could be described as under control, but anything can happen tomorrow.

"I am worried. We cannot relax for a second. We have to be on the lookout constantly."

In August, there were 38 cases reported, with two deaths, and there have been around 450 cases reported since November last year.

Dr Hitzeroth said he had not heard of any cases yet of plague among military personnel, but stressed that "the military forces have their own system of reporting. Their figures are separate to ours."

He said unconfirmed reports denied by military spokesmen that there had been three cases of soldiers hit by plague, were "possible but unlikely," as military health care was far superior to that available to civilians.

The "terrifying" possibility existed that the bubonic plague strain, borne by fleas carried on rats, could mutate into pneumonic plague, he said.

"That is worse, that is a formidably dangerous disease, a real killer."

There were no plans afoot to attempt a quarantine of Ovambo because "how do you quarantine half the country's people?"

There was no inoculation against bubonic plague available, and antibiotics had to be administered once the symptoms became clear.

Although plague is not contagious, and cannot be transferred by human contact, the danger existed of fleas bearing plague being transported on humans or dogs from one part of the country to another.

Dr Hitzeroth said the most "worrying aspect" was that "we expected a decrease in plague in the rainy season, and that did not happen."

"We must assume that the infection, probably that of rodents, is spreading."

The war in Ovambo was having a serious effect on preventative medicine programmes he said, as "we cannot move freely in the rural areas to check on kraals."

The spectre of a mass outbreak of plague in the area is a frightening one.

Over 6 000 squatters live around Oshakati in filthy, unsanitary conditions.

No SADF Cases Reported

Cape Town THE CAPE TIMES in English 16 Sep 83 p 3

[Article by Tony Weaver]

[Text] Windhoek--The Medical Corps of the South African Defence Force is monitoring the bubonic plague situation in the Ovambo war zone closely, and as yet there have been no cases of plague reported among soldiers serving in the area.

It was disclosed on Wednesday that the 330 km strip between Oshakati and Ondangwa which houses not only close to 250 000 Namibians--a quarter of the total population--but also thousands of South African national servicemen, was the breeding place of the current plague epidemic.

Since November last year, 450 cases have been reported, with 63 cases and three deaths registered in the past six weeks alone.

A spokesman for the SADF's Medical Services said from Pretoria yesterday: "We have the situation under control, and as yet no Defence Force member has reported sick with bubonic plague."

She added that "if someone comes in with the symptoms of plague, then measures will be taken immediately to prevent the disease from spreading, and thorough checks will be done on all personnel."

Besides a large concentration of military personnel in the area--headquarters of the SADF and South West Africa Territory Force in the Ovambo war zone--there are also scores of "internal refugees" living in squatter camps with no sanitation around both Oshakati and Ondangwa.

Preventive medicine programmes in the rural areas surrounding Oshakati are being hampered by the war.

TOURISTS, IMMIGRANTS BRING IN TROPICAL DISEASES

Amsterdam ELESVIERS MAGAZINE in Dutch 24 Sep 83 pp 95-97

[Article by Dinke van Damme: "The Netherlands Is Suffering From Imported Diseases: One-Way Flight for Malarial Mosquitos"]

[Text] Many diseases, particularly those of a tropical nature, seemed to have been conquered in our country or were simply not encountered. This has changed with the increase in tourism and immigration.

A mosquito from Africa, a fellow passenger on a DC 10, "deplanes" at Schiphol and bites a man in Aalsmeer. This then turns into a rare case of malaria. There are surprised looks in the hospital. It's happening more often, however: mysterious viral diseases, brought back from tropical countries by tourists, vacationers, and foreigners. At customs, of course, you are checked for your papers, not for infection. With its open borders, Western Europe is being flooded with temporary and permanent guests. The Netherlands, the Federal Republic, Belgium, France, England, and Denmark have most diseases under control, but in Eastern Europe, North Africa, or the Far East the situation is not yet as advanced.

A half century ago TB was almost the same sort of verdict as is cancer today. The patient knew that even if he didn't die, he would be "taken out of circulation" for years. A great deal of concern, therefore, for that silent killer: sanatoria and strict control. Thanks to gigantic efforts the last sanatorium could finally be closed.

Leprosy was well known in the Netherlands: physicians had heard about it in the course of their studies, and they had also read about it. Malaira was not found in the Netherlands. Cholera and its variants: extended analysis brought a little insight and even then it was still not known exactly how to cure it. The culprit would turn out to be a spoiled salad eaten somewhere in a poor country. On an island in the Greek vacation archipelago a typhoid epidemic breaks out. Airline passengers are admitted dozens at a time to a Copenhagen hospital after a forced landing: food poisoning. A somewhat careless cook had an infectious disease. We run special, often extremely dangerous risks in international travel. The person going on a faraway trip often comes home not only with tales to tell, but sometimes with a strange infection as

well. Physicians are being confronted with exotic illnesses more and more often. The fever which at first made one suspect a bad case of flu can turn out to have been caused by malaria. Vomiting and diarrhea can be symptoms of cholera. And thus we are regularly startled by diseases which were not native here or which we had already overcome. In such cases we can speak of import diseases.

Immigrants from the Mediterranean basin, particularly those from Morocco and Turkey, need to have a health certificate and a lung x-ray. That is quite often not the case, however. For this reason, TB occurs frequently in this group. We now have tuberculosis well under control and the danger of infection is small, especially for persons under fifty. Nevertheless, there were still 1,592 cases in 1982. Foreigners who enter the country illegally of course avoid any kind of control, and Surinamers and Netherlands Antilleans are not screened at all. There is thus no check at all for diseases which they bring along. Moreover, last year there were 47 confirmed cases of leprosy, of which 34 originated in Suriname. Fearful of any appearance of discrimination, no one dared to demand a health examination.

In the course of years a hereditary blood disease was also discovered, particularly among Creoles. The carrier often has no problems because of it, but sons or daughters can suffer from a serious form of anemia and from the onset of severe pain in the extremities. The only groups that go through the medical sieve upon entry are adopted children and the Vietnamese boat people. Tourists can go through unexamined.

The things that enter our country in this way make one shudder. A few facts from 1982: hepatitis A, 1,212 cases, 655 victims of hepatitis B, 560 cases of dysentery, 66 patients with typhoid, 119 cases of malaria, and even 6,795 cases of salmonella. Moreover, we do not even know the names of many imported diseases. In the meantime, the family physician is faced with a real challenge however: the diagnosis of these often very serious illnesses.

Thanks to good health care and advanced hygiene, no epidemics have broken out. But for a few exceptions, the imported diseases are highly contagious. Dr A. de Geus of the Amsterdam Tropical Institute: "Malaria is our biggest worry. There are more cases of it every year, and I am afraid that the rate will increase. Tourists can protect themselves extremely well against many foreign diseases by being vaccinated. It is different with malaria. As in the case of small pox, it was the intention of the World Health Organization to eliminate malaria entirely. It started a large-scale campaign in 1956. Impressive results were indeed obtained. But the campaign had to be ended prematurely. The reason: lack of money, poor organization, and more wars.

"Now we have to struggle against a serious worsening of the malaria situation in many countries. In some places there is even talk of a 30 to 40-fold increase. That is a serious matter, but even more upsetting is the resistance of some strains of malaria to medicines that worked well in the past.

Various parasites have also become resistant to medicines. It is therefore not surprising that more and more people get malaria. Visitors of countries where malaria is prevalent need to be very careful, to take their tablets conscientiously, and at night (that is when the mosquito bites) to sleep under a mosquito net and wear long sleeves, socks, and long trousers. Skin which is still unprotected needs to be smeared with a strongly smelling preparation. And always inform the family physician about any recent visit to a country where malaria is prevalent in cases when one comes down with fever. The disease can indeed be treated provided it is done early enough.

"Of course, it is always advisable with fever, vomiting, and diarrhea to tell the physician about a visit to a certain country. This is also true for the areas near the Mediterranean Sea. Tourists should also prepare themselves better. Travel organizations frequently provide information only about the preventive measures required by the guest country. Sometimes that is insufficient. Young people, who often rough it while travelling, also need to protect themselves better. They are more likely to come into contact with infectious diseases, typhoid for example. They simply run more of a risk than the tourist in a luxury hotel. Taking along water purification tablets is only a small bother and can prevent a great deal of unpleasantness. There also exist special powders which when dissolved in water replace all of the elements that are lost in the case of severe diarrhea. This prevents dehydration. Thus there are many small remedies, aside from vaccinations, for preventing infections or for suppressing them directly.

"We have no control whatever over the entry of foreigners. We are only involved with the cases of illness and later on with the statistics. We can indeed say with certainty, however, that the imported diseases will continue to increase. As long as everyone remains alert, there is no chance of an explosion. The only disease to cause concern is malaria. If nothing is done about it on a large scale, it could in fact get out of hand. There still appears at this time nothing that can be done against certain malarial parasites. And the medical profession is concerned about it. The authorities could perhaps be somewhat more strict. And the tourist somewhat less careless."

12412
CSO: 5400/2502

NUTRITIONAL BIO-GEOCHEMICAL ETIOLOGY OF KESHAN DISEASE

Beijing CHINESE MEDICAL JOURNAL in Chinese No 8, Aug 83 pp 594-596

[Article by Su Yin [5685 1714] and Yu Wei-han [0060 4850 3352], Keshan Disease Research Institute, Harbin Medical College, Harbin]

[Text]

In order to clarify the bio-geochemical etiology by examining the relationship between water, soil and diet, effects of preventive measures and results of laboratory experiments, the authors investigated the Keshan disease (KD) epidemic and nonendemic areas in Heilongjiang, Hebei, Shanxi, Shandong, Shaanxi, Sichuan, Yunnan, and Tibet through general clinical examinations and records of diet (1963-1978). The results revealed great differences in water, soil and diet, it is suggested that there is a relationship between natural environment and KD incidence and recognized that environmental chemicals through the water-soil-food chain act upon the human body.

Although many decades have passed since the recognition of Keshan disease (KD), the etiology is not yet clear. But with accumulated data and development of investigation in endemic areas on prevention and treatment and experimental studies, a bio-geochemical theory is being accepted more and more and research on the nutritional bio-geochemistry is accelerating.

From the very beginning of the research on KD prevention and treatment in 1953, a correlation between disease epidemics and patient diet was observed. The diet is extremely limited, "food singularity", in endemic areas so it was suggested that KD cardiomyopathy is related to nutritional factors.¹ Through investigation of the natural environment of endemic districts, Xie Jin-kui et al² discovered that almost all severely affected districts have marked water loss and soil erosion so one or more chemical elements in the water, soil and agricultural products may be lacking. Geographical workers made large scale investigations in the endemic districts of our country, analyzing trace elements in

the water, soil and cereals. They suggested a relationship between the natural environment and KD incidence and recognized that environmental chemicals, through the water-soil-food chain act upon the human body.^{3,4} So the studies of the water, soil, diet and pathogenesis joined naturally. In 1973 we presented our suggestion that KD is a nutritional, bio-geochemically caused myocardio-pathy, at the meeting to discuss this disease⁵. To further study the etiology for prevention and treatment, this paper tries to clarify the bio-geochemical etiology by examining the relationship between water, soil and diet, the effects of the preventive measures and the results of laboratory experiments, etc.

RELATIONSHIP BETWEEN WATER, SOIL, DIET AND KD EPIDEMICS

Comparison of endemic and nonendemic districts. From 1963 to 1978, we investigated the KD epidemic and nonendemic areas in Heilongjiang, Hebei, Shanxi, Shandong, Shaanxi, Sichuan, Yunnan and Tibet through general clinical examinations and records of the diet. The results revealed great differences in water, soil and diet.⁵⁻⁸

For example, many brigades in Fanrong People's Commune in Fuyu county, Heilongjiang were affected by KD, but the Xiangfa brigade, the only one at the west end near the nonendemic area as well as Taha Commune were free of KD. Investigation proved that Xiangfa and the areas west of it have sandy clay soil. The water, soil, cereals, and human hair have trace elements which differ with those of the eastern endemic villages. There are great differences in the foods grown in the nonendemic and endemic areas. Kinds

of staple foods in Xiangfa are more varied, staples include corn, dried bean and bean products, and more meat and eggs were eaten than in the endemic districts during the peak disease period of 1963 and the ordinary year of 1975.

Guyuan county, Hebei province, is a tableland plateau. In this county the endemic areas are all in the southeast, the northwest is nonendemic. The soil in the endemic and nonendemic areas is also quite different with less black and more sandy soil in the nonendemic areas. The assisting food was similar but the staple grains differed. The staple at Erdaogou was single but at Xiyangcheng the kinds of corn were many and had more beans.

In Shandong province, the food taken at Quanli brigade in the east mountainous area and Gaoshi brigade were also quite different. In Quanli the staples included $\frac{1}{2}$ dried sweet potato slices, $\frac{1}{4}$ maize, $\frac{1}{8}$ wheat. In Gaoshi they were $\frac{1}{2}$ maize, $\frac{2}{5}$ wheat and $\frac{1}{8}$ dried sweet potato slices. The Quanli diet is improved over that taken during the peak disease year when dried sweet potatoes were $\frac{7}{10}$ of the diet (now $\frac{1}{2}$) and wheat and soybeans have been increased lowering the KD rate correspondingly. But in the endemic area in households with children on a monotonous, mostly dried sweet potato diet which they prefer from the ages of 4-10, KD is common and this is the peak disease age. This further proves that on the basis of the water and soil, some food singularities can contribute to the pathogenesis.

The etiologic factor and disease susceptibility. In endemic districts throughout our country, there are marked differences on KD epidemic victims, most KD patients being peasants. Investigations of peasant and worker (including forestry, railway and other workers) inhabitants of the same villages covered KD incidence, physicals, sex, age, family member composition, years of residence, native place, living conditions, drinking water source, etc. The only significant difference found was the diet. Peasant staple foods are self grown so the water-soil factors affect them more intensely. They are inclined to eat more maize and less meat, eggs, oil and vegetables.⁹ That is why they are vulnerable to KD.

Diets during peak disease and ordinary years. Food singularity consisting of one staple was marked during KD peaks in endemic districts.^{6,9} In recent years, KD incidence has been greatly lowered in many endemic districts with very few new cases and chronic case stability with new cases in historically severely affected areas¹⁰ due to diet improvements.

PREVENTION IN ENDEMIC DISTRICTS

During 1965-1967 we experimented with prevention by dietary improvements in formerly severely affected areas.⁵ The prevention areas were the Xinghuo Third and Seventh brigades (including 80 families); negative contrast area Xinghuo Fourth brigade (47 families) 1 kilometer northwards and favorable contrast area the Huyuan State Farm First Branch (35 families). The altitude, temperature, soil and other natural conditions were the same. In the prevention areas each inhabitant was given beancurd daily, high in vegetable protein and some other nutrients. Two years later, the KD incidence had lowered markedly, former chronic patients had improved and no new case was found. During the same period, in the negative contrast area, new acute and latent cases appeared. But there was also peak incidence in the same county, with many new cases in surrounding villages. So the validity of the observations were proved in a high incidence period. Just by adding beancurd daily, even with the traditional staple food prevention was achieved.

During 1973-1978, we continued our prevention observations of improved staples in highly endemic areas.¹¹ In Fengtian brigade (120 families) 10% locally grown soybeans were mixed with the maize. During 5 years' observations, we carried out 7 general clinical examinations (electrocardiographs, X-ray and physical examinations) and 5 dietetic investigations. No new acute, subacute or chronic cases occurred. But in the surrounding villages 11 scattered cases (including acute, subacute and chronic cases) appeared and were cured by our institute. This showed soybean preventive effects.

Based upon our experience, from 1965 some other endemic districts have improved their diets, some adding bean milk with positive preventive effects. The KD incidence in

some old endemic areas in northern Heilongjiang province has been greatly decreased.

So soybean products, varied staples and mixed diet from varied sources have all proved preventive. Therefore, KD may be prevented through proper diet in endemic areas.

LABORATORY EXPERIMENTS

Experimental observations on the corn and vegetables grown in endemic areas show adverse effects on the growth and myocardium of white rats,^{12,13} including myocardial parenchymal changes; growth retardation, decreased life span; relative increased heart weight; decreased thymus and brown fat weight; lowered general resistance; higher absorption of some trace elements, etc. The differences in these changes in rats, fed on endemic and nonendemic sources of animal feed were statistically significant. This provides experimental evidence of KD nutritional bio-geochemical etiology.

Several combinations of food grown in endemic areas were experimented with. In the group fed on mixed feed, animal body weight increase was faster; cardiomyopathy incidence was lower and life span longer than in the group fed mainly maize, particularly when soybean was added. Soybeans clearly ameliorated the disparities between groups fed products grown in the endemic and nonendemic areas.

Animal experiments in endemic areas prove the soybean's worth. The soybean is not only plentiful in trace elements, but also high in vegetable protein and nutritional value. As soybeans may be produced in endemic areas the supply is guaranteed cheaply.

CONCLUSION

The bio-geochemical basis of Keshan disease etiology is now recognized, there being mainly water and soil differences between nonendemic and endemic areas. There are animal myocardium necrotizing agents and growth inhibitory factors in the corn and vegetables grown in the endemic districts.

The endemic area water-soil factor influences disease incidence mainly through differences in food composition. Limited monotonous diet promotes the harm whereas a mixed, well balanced diet may play a pre-

ventive role. The soybean and its products may be major preventive food.

The bio-geochemical environment should be reconstructed. Based upon the endemic characteristics, the agricultural soil should be improved and new crops cultivated to vary the diet and break the water-soil-food chain to eliminate the pathogenic factors in these areas.

At present, our research is concentrated on trace and other nutritional elements and their relation to the pathogenesis.

PHILIPPINES

BRIEFS

GASTROENTERITIS DEATHS IN CEBU--Gastroenteritis is again on the rise. Already, gastroenteritis has caused several deaths in Cebu and Pampanga. In San Lazaro Hospital in Manila alone, 531 cases were reported from Sept 11 to 17 by the city's Disease Intelligence Center. [Excerpt] [Manila PHILIPPINES DAILY EXPRESS in English 29 Sep 83 p 6]

CSO: 5400/4316

HEMORRHAGIC FEVER EPIDEMIC REPORTED IN HANOI

Hanoi NHAN DAN in Vietnamese 8 Sep 83 p 2

[Article: "Steps Taken Against Hemorrhagic Fever Epidemic"]

[Text] In a positive effort to combat the children's hemorrhagic fever epidemic in the city and provinces, Children's Hospital Number 2 has quickly taken the initiative by increasing the number of patient beds and producing enough serum to insure successful treatment.

Outside communicable disease ward B, which specializes in the treatment of hemorrhagic fever, the hospital has put all 50 of the beds that were in internal medicine ward number 4 plus 10 additional beds for use by patients during the course of the epidemic. The examination clinic has set up 25 additional beds in order to promptly receive children who become ill. The total number of beds set aside for the treatment of this disease has risen to 145. The pharmacy has recycled old bottles and produced enough serum to fully meet hemorrhagic fever treatment needs. The testing clinic has assigned eight additional people to work in the laboratory in order to rapidly process tests. It is using a chemical different than the scarce one once used to test red blood cells. All doctors and nurses have been trained in hemorrhagic fever and are thoroughly familiar with the procedures for treating the disease, treating shock and so forth. Since mid-June, the hospital has treated several thousand children for hemorrhagic fever. The death rate among children has declined significantly and not one death has been the fault of the hospital.

7809

CSO: 5400/4309

MEASLES EPIDEMIC PUTS PRESSURE ON HEALTH SERVICES

Harare THE HERALD in English 9 Sep 83 p 1

[Text]

AT least 17 people died and 1 221 others were admitted to two infectious diseases hospitals in Harare when the measles epidemic swept through the city, the health, housing and community services committee, was told last month.

In a quarterly report, circulated during the committee meeting, Dr Mbengeranwa said the epidemic had overloaded hospitals and more than 80 patients were being admitted every week.

A two-week emergency immunisation campaign had to be launched in June because the disease broke out at an unexpected time. Measles normally affected people between August and October, he said.

The disease has so far killed more than 40 people throughout Zimbabwe.

During the same period, six people from the Mbare Matapa hostels in Mbare were admitted to municipal health centres because they were suffering from diseases linked with poor living conditions and overcrowding (meningococcal meningitis).

The outbreak of measles and other diseases caused a lot of pressure on the clinics and this was worsened by the shortage of staff in his department.

He appealed to the council to employ more medical staff and provide more money to his department so that he could improve it.

"The health inspectorate section continued to function under extremely difficult circumstances

brought about by the present chronic staff shortage." It had been forced to limit its activities to urgent matters such as infectious disease, investigations, hazardous substances and liquor licences.

The city health department had been criticised by the public for lack of prompt action when dealing with complaints because of the shortage of health inspectors, said.

Increasing numbers of squatters had also put "unexpected pressures on the health system" because such settlements were unplanned and no provision had been set aside for them in the city's annual budget.

"This had reached a climax in June when there was a massive proliferation of a squatter settlement on a farm outside Waterfalls."

He said the number of typhoid cases had decreased but tuberculosis admissions had remained at a constant level.

"Most of these admissions were from the rural areas and Chitungwiza."

The city council decided at its last meeting that the health, housing and community services committee and the general purposes committee should meet and consider the staffing situation.

FOOT-AND-MOUTH DISEASE THREATENS ALL OF JAVA

Jakarta KOMPAS in Indonesian 3 Sep 83 pp 1, 12

[Article: "Java Fears Cattle and Water Buffalo Are Threatened by Hoof-and-Mouth Disease"]

[Excerpts] All cattle and water buffalo in Java are threatened by the hoof-and-mouth disease. Between 10 and 20,000 animals, scattered throughout West, Central and East Java, have now been stricken with the disease. The whole world greatly fears this disease because it does not respond to treatment and causes a drop in meat and milk production.

According to information obtained by KOMPAS from a participant in the hoof-and-mouth disease evaluation meeting held on Thursday [1 September], the disease spreads rapidly. It was first discovered in May in Bajo Village, Kedung Tuban Subdistrict, Blora Regency (Central Java), and by July it had spread to 12 villages. At that time, 4,000 animals had succumbed to this virulent disease which is spread by a virus.

At the end of August it was reported that the disease had spread to 10 areas in Central and East Java and Yogyakarta as well as to subdistricts in Bogor and Sukabumi (West Java). It is estimated that 10 to 20,000 animals have been stricken with the disease. Because it has broken out in various areas sporadically, all cattle in Java are now threatened by the disease.

In 1974 Indonesia obtained aid from the Australian Government to control the hoof-and-mouth disease with mass vaccination in areas where the disease had spread, namely, Bali, all of Java and South Sulawesi. With the current outbreak of the disease, Indonesia's plan to be free of this disease by 1984 must be postponed.

Questions Raised

Several parties contacted by KOMPAS doubted the sincerity of the Animal Husbandry General Directorate in preventing the hoof-and-mouth disease outbreak. If Australian aid had been used as had been intended, the outbreak would not have occurred. They questioned whether the mass vaccination program had been carried out effectively or whether it had been manipulated.

They also said the animal husbandry director general did not have a definite program for tackling this contagious disease. Proof of this lies in the delay encountered in surveiling the situation. News of the outbreak was received only after thousands of cows had succumbed. The same is true for the way the problem was handled. In no time at all the disease had spread from Blora to Bogor and Sukabumi.

Animal husbandry officials in the infected area reported the disease to central authorities in July, and not long after that the government offered presidential aid of 420 million rupiahs to augment the APEN [Estimate of State Revenue and Expenditures] budget to root out this livestock disease. The informants said the funds were to be used to purchase vaccine, antibiotics and other supplies. The vaccinations were to be conducted at the beginning of August.

To prevent the spread of this disease, the seven regencies surrounding Blora Regency were watched very closely. In particular, livestock from this area were scrutinized and guided by the responsible authorities. However, hoof-and-mouth disease had already spread to other provinces in Java.

To date the animal husbandry director general has been unable to find the cause for the outbreak of the disease. The Animal Husbandry Directorate General's Livestock Disease Research Section believes the disease was due to the dense livestock population in Java. In 1979 there were 3.8 million cows in Java and 1 million water buffalo. At present it is estimated that both types of animals total 6 million.

Shot

The Animal Husbandry Directorate General admits that it does not have a clear operational program for tackling this disease, but a well-considered program must be found. For instance, an agriculture minister's decision must be issued to ban cows and water buffalo from leaving Java. Further interprovincial traffic of livestock in Java must be watched. If diseased animals are found, they must be destroyed.

6804

CSO: 5400/4312

CAUSE OF OUTBREAK OF FOOT-AND-MOUTH DISEASE DETAILED

Jakarta KOMPAS in Indonesian 7 Sep 83 pp 1, 9

[Article: "Poor Record Maintenance of Livestock Population Found To Cause the Spread of Hoof-and-Mouth Disease"]

[Excerpt] Records of births, deaths and trade of livestock in rural areas are poorly maintained. This statement was made following the discovery of a discrepancy between the number of animals and the number of vaccinations administered to prevent hoof-and-mouth disease. Therefore it is not surprising that this disease continues to spread and that the number of infected areas is mounting.

Queried by KOMPAS, Dr Wardjiman, chief of the Veterinary Medicine Faculty Animal Hospital at Gajamadah University in Yogyakarta, made the above statement on Monday, 15 September. Wardjiman and 20 veterinarians recently finished vaccinating animals in Blora Regency (Central Java). The outbreak centered on Blora because action to prevent the spread of this fearsome disease was delayed and the disease spread to other areas. The latest records show that 10 regencies in Central Java have been infected as well as a number of regencies in West and East Java and Yogyakarta.

Wardjiman said almost no records on the number of births, deaths and trade of livestock are maintained by the lowest level administrative officials (those in village administrative units). As a result the Animal Husbandry Service runs into problems when the number of animals reported by the village administrators differs considerably from the number of animals that must be vaccinated. Problems are also encountered if the village administrators do not know whether all the local animals have been driven to the vaccination center even though control of the disease depends on the vaccination of all animals.

"A village administrator reported that 150 animals were ready to be vaccinated. Actually three times that number were vaccinated," Wardjiman said, noting the poor record keeping for livestock in rural areas. "If this is the case, we will be unable to control the disease considering the limited amount of vaccine available as well as the money and manpower needed." To date, vaccine has been produced at the Surabaya Veterinary Pharmaceutical Center and has been imported from Australia.

128,000 Animals Vaccinated

During the 20 days they spent in Blora Regency, the epidemiological team formed by the Animal Husbandry Directorate General vaccinated 128,000 animals. When the team was withdrawn, thousands of cattle still had not been vaccinated. The vaccination task will be continued by personnel from the local animal husbandry services.

The epidemiological team consisted of members from the Animal Husbandry Directorate General, the Animal Disease Research Station (BPPH) in Bogor, Veterinary Medicine Faculty of Gajamadah University, Veterinary Pharmaceutical Center in Surabaya and the Bali and Jakarta Disease Training Centers. The team was divided into two groups, one to collect bacterial samples for research and the other to trace the spread of the disease from infected to noninfected areas.

According to Wardjiman, the team assigned to trace the spread of the disease also worked in the livestock market in Blora. When a diseased cow was encountered, the team treated it immediately and provided information to the surrounding community. "Diseased cattle were encountered in almost every livestock market. The infected markets were requested to close for a long period, and farmers were ordered not to take the cattle back to their pastures," Dr Wardjiman said. In Blora, the local team burned hundreds of quintals of cattle feed which they believed was contaminated by the hoof-and-mouth disease virus.

Report

Drawing on 50 years of experience, Wardjiman disclosed that births, deaths, and trade in cattle must be recorded accurately because village administrators receive reports almost daily from cattlemen and send weekly reports to the subdistrict office. Reports from this office are forwarded each month to the regency office. "Accurate statistics are maintained there so that the Animal Husbandry Service, which must handle the vaccination program, can provide the exact amount of vaccine needed for the livestock," Wardjiman said.

At present, however, practically on reports are made to the village chiefs' offices and as a result little is reported to the higher level authorities.

6804
CSO: 5400/4312

PRESIDENT ORDERS MASS VACCINATION OF CATTLE

Jakarta HARIAN UMUM AB in Indonesian 8 Sep 83 p 1

[Article: "Presidential Instruction: Vaccination of Cattle Protects the Cattleman"]

[Excerpts] President Suharto instructed that mass vaccination be administered to control hoof-and-mouth disease (aphatahae epizooticae), which has stricken cattle in Java, as well as anthrax (radang limpa) which broke out among pigs in Irian Jaya. To control these disease, Animal Husbandry Service and ABRI [Indonesian Armed Forces] personnel as well as other manpower must be mobilized.

Offering a clarification to newsmen at the close of the limited session for economics and finance industries, Information Minister Harmoko, accompanied by Prof Dr J. Hutasoit, vice minister in charge of increasing animal and fish production, said the government has decided to allocate 2.47 billion rupiahs to handle the hoof-and-mouth disease and 99,348,000 rupiahs to control anthrax.

Hutasoit said as of 3 September 9,270 cattle in Java were recorded as having been stricken with hoof-and-mouth disease and 6,845 of them have been vaccinated. This disease was first encountered among cattle in Blora Regency and Bojonegoro in July. Because of the intensity of this disease, it moved rapidly to other areas. Therefore it was decided to vaccinate all split-hoofed animals in Java.

He also said that losses of some 55 billion rupiahs would be incurred within the next 6 months if this disease was not controlled immediately.

Presidential funds amounting to 330 million rupiahs were obtained to handle this disease while the remaining funds will be furnished by the Department of Finance.

Nine million doses of the vaccine were required, Hutasoit said, for the mass vaccination program which was conducted from June to September. Each animal was to be given two inoculations. Some 934,000 doses of the vaccine were produced domestically while the shortage was covered through imports from Britain and France.

To prevent the spread of this disease, Hutasoit said, it was decided to ban the shipment of cattle outside Java. Further the Cakung slaughter house has been closed temporarily and will be sprayed to rid the area of the infection. Cakung temporarily will serve as a cattle collection area.

Concerning anthrax which attacked pigs in Irian Jaya, Hutasoit said this disease is also dangerous to humans who eat infected meat. To date, 3,484 pigs have been recorded as having died and 45 persons have died after eating meat from infected animals.

6804

CSO: 5400/4312

ALL CATTLE IN JAVA TO BE VACCINATED

Jakarta HARIAN UMUM AB in Indonesian 7 Sep 83 p 3

[Article: "All Cattle in Java To Be Vaccinated To Control Hoof-and-Mouth Disease"]

[Excerpt] Veterinarian Daman Danuwijaya, director general of animal husbandry, said all large livestock in Java will be vaccinated to root out hoof-and-mouth disease. Under this program, 4.5 million cattle will be vaccinated. This will require 9 million doses of vaccine.

Meeting with newsmen in his office yesterday [6 September], the director general also pointed out that this large-scale operation is estimated to cost 2.9 billion rupiahs. At present some 400 million rupiahs are available, consisting of money allocated by the Animal Husbandry Directorate General and Presidential Aid funds of 333 million rupiahs.

At present 1.2 million of the 9 million doses of the vaccine required have been produced with aid from Australia. Daman said 9,473 animals are recorded as having been stricken with hoof-and-mouth disease. Of this total, 6,845 are said to have been cured while the remainder still must be vaccinated.

In the framework of a large-scale vaccination program, the Animal Husbandry Directorate General has targeted December 1983 as the date by which all large livestock in Java must be vaccinated.

In September 1.2 million animals are scheduled to be vaccinated and the remainder must be vaccinated by the end of December.

Responding to another question, the animal husbandry director general clarified that at this time the disease has abated in 22 regencies and 34 subdistricts of the 41 regencies and 125 subdistricts which were stricken by hoof-and-mouth disease. The fairly rapid control measures taken have been successful because of the volunteer assistance of students from the Bandung Institute of Technology and Gajahmada and Erlangga Universities who inexhaustibly participated in the inoculation program in rural areas.

According to the directorate general, the progress made toward the established target, namely to be free of the hoof-and-mouth disease by 1983, need not be considered a crushing blow considering that we are still moving toward the target. Therefore not all large animals have been given the second inoculation.

With the outbreak of hoof-and-mouth disease, the target to be free of the disease, initially proclaimed as 1983, perhaps can be achieved by 1985.

Dr Daman admitted that hoof-and-mouth disease spread very rapidly because no ban was levied against the movement of cattle out of a fear that the local economy would not stagnate.

Concerning subversion as a possible cause of the outbreak of hoof-and-mouth disease, the director general clarified that Type O hoof-and-mouth disease is typical for Indonesia; therefore there was little possibility, even plausibility, that any malevolent hands helped spread the virus.

The director general appealed to traders of large animals not to deal in livestock stricken with the disease and to cattlemen to report livestock stricken with the disease immediately to the local Animal Husbandry Service so that they could be inoculated.

Further, quarantine officials were ordered not to grant licenses for the transport of large animals out of Java. The director general said this decision was effective 10 August 1983.

6804
CSO: 5400/4312

CATTLEMEN LOSE 100 BILLION RUPIAHS ANNUALLY DUE TO CATTLE DISEASES

Jakarta HARIAN UMUM AB in Indonesian 9 Sep 83 pp 1, 3

[Article: "100 Billion Rupiahs Lost Annually Because of Livestock Diseases"]

[Text] To date livestock deaths caused by pests or disease account for very high losses suffered by small scale cattlemen. Losses suffered by the weak economic group are estimated at 100 billion rupiahs annually. Therefore the Animal Husbandry Directorate General is giving serious attention to the animal health sector which is to be included in a policy packet aimed at increasing livestock production, a competent source in the Animal Husbandry Directorate General disclosed to HARIAN UMUM AB yesterday after noon [8 September].

According to the source, cattle account for approximately 30 to 60 percent of a cattleman's income. Therefore, if the policy packet aimed at eradicating cattle diseases is not handled seriously, then cattlemen may experience even greater financial losses.

Particularly at this time when the spotlight is focused on delinquencies in the repayment of mass loans, the death of cattle from this disease could be one of the reasons for the increase in such delinquencies.

In the near future the Animal Husbandry Directorate General will establish a model for keeping livestock healthy and for safeguarding them in the interests of these cattlemen.

The directorate general source noted that the outbreak of hoof-and-mouth disease in July was a disaster and cause for concern. At the same time it was a measure of the capability of the Animal Husbandry Directorate General's apparatus to react sufficiently in the face of such a disaster.

Assorted Livestock

Regarding the assorted livestock project now in progress, it is judged to be less successful than expected. An Animal Husbandry Research and Development Center survey on rabbit breeding in Java shows, for instance, that 56 percent of this activity is done for commercial purposes, 22 percent for improving people's nutrition, 12 percent for fertilizer collection and 10 percent as a hobby.

This picture must be changed immediately considering that the target for the assorted livestock project, in this case rabbits, is essentially to improve people's nutrition particularly in areas of malnutrition where the low income group is targeted. This group is estimated to number 63 million of which 58 million live in rural areas.

Efforts to improve nutrition must be carried out and organized for rabbit breeding so that a livestock breeding packet can be adapted for it. Further, a rabbit breeding model as well as breeding stock must be developed and the management of such activity must be improved. Finally, information on the skills needed for rabbit breeding as well as information for the community on the nutritive value of eating rabbit meat must be intensively and actively provided.

In this respect, another problem that must be given serious attention in the framework of raising cattlemen's income is post-harvest activities. Great losses are incurred by cattlemen because of the poor management of post-harvest activities. For meat, the losses range between 5 to 10 percent, for eggs 15 to 20 percent and for milk 5 to 12 percent. Better technology for managing post-harvest activities along with safeguarding animal products, in fact, will create industries in the animal husbandry sector which will significantly create as well as expand the job market and opportunities for new businesses, a source in the secretariat of the vice minister in charge of increasing animal and fish production in the Department of Agriculture told HARIAN UMUM AB yesterday.

6804

CSO: 5400/4312

BRIEFS

KWAZULU BLAMED FOR RABIES EPIDEMIC--PINETOWN--The rabies epidemic in Natal has reached a new crisis point because of infected strays wandering in from KwaZulu, the Deputy Director of Veterinary Services, Dr P.J. Posthumous, warns. He said yesterday that of more than 100 recent cases, 91 were stray dogs shot on farms on the borders of KwaZulu. It appeared that in spite of repeated pleas to the KwaZulu authorities, regular inoculation programmes had not been carried out. The most seriously affected areas were Lower Tugela, where there were seven confirmed and two awaiting confirmation cases in the past month, and Kranskop and Greytown, where there were five confirmed and two waiting confirmation. Angry farmers in the Kranskop and Greytown districts had protested in writing to the Department of Veterinary Services and their protests had been sent to the KwaZulu authorities. "We have protested, shouted and screamed to KwaZulu. There is nothing more we can do," he said. Meanwhile, in a notice published today, the Durban City Health Department has warned that because of the rabies epidemic all unleashed animals must be kept off the streets. The Medical Officer of Health, Dr Muriel Richter, said the annual notice was not connected with an upsurge of the disease in other parts of Natal. [Text] [Durban THE DAILY NEWS in English 23 Sep 83 p 14]

CSO: 5400/9

BRIEFS

RINDERPEST VACCINATION ALLOCATION--THE Government has allocated K86,000 to the department of veterinary and tsetse control in the Northern Province to enable it to vaccinate cattle against rinderpest after the outbreak of the killer disease in neighbouring Tanzania. Provincial veterinary officer Dr Mohan Vyas said the vaccination was being carried out in border areas in Mbala, Nakonde and Isoka. [Text] [Lusaka TIMES OF ZAMBIA in English 13 Oct 83 p 5]

TSETSE FLY CONTROL MEASURES ORDERED--THE Government has been urged to take stringent measures now to control tsetsefly in Sesheke and save cattle from dying. District executive secretary Mr Tebuho Muliokela said the tsetsefly was on the increase because a lot of elephants were coming closer to villages in search of water. "There are a lot of flies now brought by elephants looking for water and the effect on the cattle is bad." The solution lay in aerial spraying but the council did not have money to embark on such a project. The most affected area was between Katima Mulilo and Kaoma. [Text] [Lusaka TIMES OF ZAMBIA in English 13 Oct 83 p 5]

CSO: 5400/15

BRIEFS

DOG DISEASE SPREADING AGAIN--THE dog disease, canine parvovirus, which was first seen in Zimbabwe in 1980, is spreading again. A spokesman for the Zimbabwe Veterinary Association has advised dog-owners to vaccinate their animals. The spokesman said the virus, which kills half the unvaccinated dogs it attacks, was becoming more prevalent with the end of winter. The virus was first identified in Britain in 1979 and is a mutation of the cat flu virus although it can no longer attack cats. It quickly spread to America and Australia and was found in South Africa and Botswana in mid-1980. It soon spread to Bulawayo with the first Harare cases being identified at the end of that year. The spokesman said vaccination was not fully effective and had to be repeated every year. But if a vaccinated dog caught the disease it was fairly easy to cure it. The Government Veterinary Department only gave vaccinations for canine disease which were a public health menace or which could be caught by humans. The parvovirus vaccination was only available from private vets, said the spokesman. [Bulawayo THE CHRONICLE in English 22 Sep 83 p 3]

CSO: 5400/8

RESEARCHERS MAY HAVE KEY TO DISEASE-RESISTANT CROPS

Perth THE WEST AUSTRALIAN in English 7 Sep 83 p 31

[Text]

BRISBANE: Researchers at Queensland University believe they have made a breakthrough in plant genetics that could eventually revolutionise the production of disease-resistant crops.

The researchers from the biochemistry department said they had identified a protein thought to be produced by resistance genes in a plant.

The department head, Professor Ken Scott, and Dr John Manners, a Queen Elizabeth post-doctoral fellow, said identification of the protein would enable them to isolate a gene that would open the door to genetic engineering for disease resistance in plants.

Their research was centred on barley and the powdery-mildew disease, which affects not just barley but all economically important cereals such as wheat, oats and rice.

Arduous

Professor Scott said that can take many years to such fungal diseases had been achieved by cross-breeding—a long and arduous process in which highly desirable but susceptible agricultural varieties were crossed with naturally occurring resistant wild cereals.

"This is a slow drawn-out procedure than can take many years," Professor Scott said.

"It can take several generations to get rid of the undesirable traits that the wild variety brings along with its resistance genes."

He said that the next step after identifica-

tion of the protein was to use it to identify the gene itself.

"No one has ever isolated a resistance gene. It is like looking for a needle in a haystack," Professor Scott said.

Thread

"But by identifying the protein produced by a resistance gene, we have found the thread in the haystack that will lead us to the needle—the gene.

"The ultimate aim is to identify single genes for resistance to disease, herbicides, salt and other stresses such as cold and drought and incorporate these single genes into agriculturally important crops."

CSO: 5400/7507

BRIEFS

ANTI-SMUT DRIVE--A call has been made for all local cane growers to assist the Ministry of Agriculture in the eradication of the return of smut disease to the sugar industry. Minister of Agriculture, Food and Consumer Affairs, Dr Richard Cheltenham, yesterday told a meeting for farmers at Queen's Park that their full and voluntary cooperation with the various Government agencies involved in the fight would rule out the enforcement of certain measures which are provided for. He acknowledged that smut disease was again a problem, particularly among small farmers and called for cooperation from the farmers with the personnel of the cane testing and breeding stations. He said: "I have it in my power and competence to make smut a notifiable disease. Legislation is on the statute books for this, but I would wish to avoid resorting to that measure. "It would mean having to set up enforcement procedures and that would result in expense to farmers who did not voluntarily replace smut-infected material with other varieties. "And so, in order to avoid placing a further financial burden on you, the farmers, and in order to avoid red tape that should always be avoided when can be avoided, I would wish to appeal to you to cooperate as much as possible...to ensure that we get rid of smut." Added Dr Cheltenham: "The sugar industry is critically poised and we can't afford to suffer any man-made setbacks. So if by your efforts you can assist...I am relying on you..." He said the island had been faced with similar diseases before and survived, and would do so again. [Text] [Bridgetown THE NATION in English 15 Sep 83 p 2]

CSO: 5400/7504

BRIEFS

BOL CROP DAMAGE--The inhabitants of several villages have abandoned their fields of millet for the benefit of the manges-mil (millet eaters), small birds moving in flocks on several thousands and, like locusts, devouring in a few hours fields of millet. Although all peasant methods have been used to combat these birds, they have been, according to our correspondent in Lac Prefecture, Mbodou Seid, even more numerous [this year] and have thus forced peasants to abandon purely and simply their fields. Moreover, these peasants might well experience another invasion, that of migratory locusts of which the International African Migratory Locust Organization [OICMA] has forecast a considerable multitude next October to December in the Lake Chad Basin. [Excerpt] [Ndjamena INFO TCHAD in French 26 Sep 83 p 7]

CSO: 5400/17

BRIEFS

PEST CONTROL SEMINAR--A 12-day seminar on the control of quelea quelea, a bird specie that desroys crops, wound up here yesterday. The seminar, which explored ways of reducing and weakening the pest with minimum cost without causing danger to the environment, was attended by representatives of six member countries of the Desert Locust Control Organization for East Africa, experts from the World Food Organisation (FAO) and representatives of FAO in the six countries. The participants of the seminar carried out detailed study from documents, reports and charts and observed field demonstrations on the application of pesticides in areas where quelea quelea breeds in profusion causing damage to crops. The seminar was closed by Mr. D. M. Wako, Director-General of DLCO-EA, at the assembly hall of the organization. Mr. Wako noted the prospects of integrating desert locust and quelea quelea control activities, stressed the support of the Revolutionary Government to such continantal organizations and expressed confidence that the participants would translate into deeds the knowledge they had gathered during the seminar. Comrade Dr. Hailu Kassa, head of the anti-pests section in the agricultural development department of the Ministry of Agriculture, made a statement assessing the discussions of the seminar. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 27 Sep 83 p 3]

CSO: 5400/13

BRIEFS

SEVERE LOCUST INFESTATION REPORTED--Severe locust infestation has occurred in Tharparkar desert, specially in Chachro and Mithi tehsils, according to Plant Protection Department. Infestation from nine localities in an area of 600 square kilometers was reported from Khipro desert. As a result of recent rains in the desert, adult population of locust have laid eggs and second generation have commenced. Migration of locust from East has also started and was likely to continue next month.--APP In the summer breeding areas of Tharparkar, Nara and Cholistan, the locust population had reached 15,000 adults per skm, says a Press release of the Plant Protection Department. But 2000 groups had been destroyed in Cholistan and Tharparkar deserts and 250 skm area was strip sprayed by ground and air. In Nara District, one mature regarious swarm entered from east followed by two swarmlets on Sept 8 and 9 and were sprayed by air and ground. In Chachro and Mithi tehsils, ground teams controlled over 72,000 groups of hoppers including one pink swarm of about 2 skm. In Khokhrapar 65 hopper groups were controlled. Infestation from 9 localities in a gross area of 600 skm was reported from Khipro Desert out of which about 300 groups of hoppers and an area of 460 skm was cleared. One mature swarm measuring about 5 skm reported to have entered from east was also controlled. About 150 persons have been deployed with 56 vehicles and four aircraft--two based at Chhore, one at Dharki, and one at Rahim Yar Khan. [Text] [Karachi DAWN in English 26 Sep 83 p 8]

CSO: 5400/4701

LOCUST OUTBREAKS HIT MANY AREAS

Studies on Locusts Infestations

Manila BULLETIN TODAY in English 1 Oct 83 pp 1, 12

[Text] Assistant Agriculture Secretary Domingo Panganiban confirmed yesterday reports of widespread locust infestations in many sections of the country.

Panganiban attributed the outbreak of locust to the long drought that hit Mindanao recently.

He noted, however, that most of the regions with no experience in controlling locust infestations have tended to magnify the problem.

People in these regions cannot distinguish grasshopper and tree locust swarms from congregating solitary locusts he said.

Studies on the infestations conducted by the Bureau of Plant Industry and the Ministry of Agriculture's pest surveillance teams indicated that about 90 percent of the locusts outbreaks occurred in wastelands of non-crop areas of the affected regions.

These swarms were described as in the studies composed of "mixed hoppers and adult locusts which have the tendency to enlarge the areas of infestation."

Panganiban said that this kind of infestation occurred in Masbate, Negros Occidental, Isabela, Quirino and other areas in Luzon and Visayas.

He added that the look-alike appearance of some species of grasshoppers and locusts has caused panic in Negros, Rizal, Camarines Sur, Biliran sub-province and Tarlac.

Panganiban urged the formation of barangay pest control groups to assist the Ministry of Agriculture's surveillance teams in controlling the pest faster.

Meanwhile, Panganiban reported that the widespread armyworm infestations in Mindanao and Visayas have already been contained.

Locust Infestation Spreads

Manila BULLETIN TODAY in English 2 Oct 83 p 5

[Text] Davao City--The locust infestation has spread to five provinces in Southeastern Mindanao, according to the Ministry of Agriculture.

Director Arturo Sarmiento of the ministry in Region XI said that "the locusts are not yet fliers and therefore, not voracious."

He said that his office is harnessing the assistance of the governors and mayors of the affected provinces to help combat the spread of the insects which were still in their "solitary stages."

Sarmiento reported that as of last week, a total area hectares of corn plants had already been cleared of locusts.

The presence of the locusts has been reported in the towns of Tantangan, Tamapakan, Norala, Marbel, and Polomolok in South Cotabato; Kiblawan, Magsaysay, Padada, and Digos in Davao del Sur; Panabo, Mawab and Compostela valley in Davao del Norte; Dahican and Manay in Davao Oriental, and in certain areas in General Santos City.

Sarmiento said hundreds of farmers and government men have joined efforts in spraying insecticides to eliminate the locusts.

He said that the locusts in Mindanao were spotted congregating in large numbers immediately after the drought last June. He said that the locusts multiply very fast when they band together. (RCC)

CSO: 5400/4316

GRAIN STORAGE IN DRUMS REPORTEDLY EFFECTIVE AGAINST GRAIN BORER

Dar es Salaam DAILY NEWS in English 1 Oct 83 p 3

[Excerpt] Storing grains in drums as done in Kilimanjaro region seems to be an effective way of protecting the foodstuffs from attack by a destructive grain borer called dumuzi, the Minister for Agriculture, Ndugu John Machunda told the National Assembly yesterday.

Follow-up efforts by the Ministry had indicated that grains kept in drums in Kilimanjaro region had not been attacked by the borer locally known as Scania-- the Minister said.

He was answering a supplementary question by Ndugu Lucy Lameck (National) who had wanted to know whether the government was aware that the pest was fast spreading to new regions.

She had also wanted the Minister to assure the House of the availability of the right pesticide for fighting the insect.

Ndugu Machunda said there were two types of pesticides used in fighting the pest, namely, actellic and permethrin. The former, "becomes less effective after three months" while the latter could be effective for "more than six months."

Answering an earlier question by Ndugu Humbi Ziota (Igunga) who had called for a better insecticide to fight the pest, Ndugu Machunda said last year 66 tonnes of actellic were imported and distributed to Tabora, Shinyanga, Morogoro and Mwanza regions.

This financial year, 109 tonnes of permethrin would be imported from Britain.

The Ministry, he said, has asked for more than 4m/- from the Bank of Tanzania to import some pesticide from Kenya.

CSO: 5400/10

BRIEFS

RICE PESTS AFFECT SRV CROP--Overall, the 10th-month rice crop is developing well. However, the area affected by rice pest increased more rapidly than before, with over 98,000 hectares affected in Minh Hai, over 21,000 hectares in Cuu Long, and over 16,000 hectares in Hau Giang. The southern provinces are making efforts to combat the rice pests. [Excerpt] [Hanoi Domestic Service in Vietnamese 1100 GMT 11 Oct 83]

WARNING ISSUED ON ARMYWORMS, PLANTHOPPERS--The Vegetation Protection Department has sent the following message to agricultural services in the northern provinces: In the wake of Typhoon No 6, armyworm caterpillars are developing in tremendous numbers, first- and second-stage larvae have appeared in many places of the Fourth Region, the delta, and the midlands, and brown planthoppers are continuing to grow and harm glutinous rice plants and Nong Nghiep 22 and Moc Tuyen rice plants which are bearing ears and budding. It is suggested that localities urgently and actively apply necessary measures, especially manual measures, to control and eliminate armyworms and brown planthoppers. [Text] [BK120418 Hanoi Domestic Service in Vietnamese 1430 GMT 11 Oct 83]

HAU GIANG PEST CONTROL--Thanks to its combined efforts and the availability of necessary means, Hau Giang Province has saved nearly 10,000 hectares of summer-fall rice and 10th-month rice from being ravaged by planthoppers. Hau Giang is now in the process of combating these insects which are still threatening another 15,000 hectares of rice. [Summary] [Hanoi Domestic Service in Vietnamese 1430 GMT 11 Oct 83 BK]

CSO: 5400/4320 ,

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