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BRIEFS

CHOLERA REPORTED--Al-Manamah, 14 Aug--Under secretary of the Bahraini Health Ministry Dr Ibrahim Ya'qub has said that seven cases of cholera have been detected in Bahrain in the past few days but that they were of the mold type which was detected in other area regions and that there were no deaths. The Health Ministry is taking all precautions to contain the cases and prevent the spread of the epidemic. [Summary] [Riyadh SNA in Arabic 1330 GMT 14 Aug 78 LD]

CSO: 5400

BRAZIL

INCIDENCE OF MEASLES UP BY 45 PERCENT IN ONE MONTH

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 18 Aug 78 p 15

[Text] Last month, the Emilio Ribas Hospital treated 338 cases of measles, 45 percent more than in the month of June, when 233 children suffering from this disease were admitted to the hospital. This increase alarmed hospital doctors and led the secretariat of health to isolate 100 beds at the children's hospital in the north zone to accommodate measles cases. As the incidence of measles continues to be high--there were 110 patients being treated for the disease at the Emilio Ribas Hospital yesterday, in addition to 67 cases at various other hospitals--the secretariat of health has decided to carry out a vaccination campaign, which will probably begin early in September.

What is causing the epidemiologists to be concerned is the fact that although vaccination against measles has been increasing as the year has passed, the incidence of the disease, as the Emilio Ribas Hospital data shows, remains stable. Although in 1975 the secretariat of health succeeded in vaccinating only 43.6 percent of the children under a year of age in greater Sao Paulo against measles, the rate of coverage by 1977 was 78.5 percent. And the figures for this year, up to May, show a vaccination rate of 89 percent.

Measles and pneumonia continue to be the two leading causes of death in the one- to four-year age bracket. Of the children taken to the Emilio Ribas Hospital to be treated for measles, which is generally complicated by dehydration or pneumonia, 10 percent die. In July, the mortality rate (number of deaths in relation to the patients brought in) reached 19 percent.

The question the epidemiologists are asking themselves is why the incidence of measles is so high--last year, the 15 children's hospitals in the capital treated 10,057 cases, when the percentage of children vaccinated is rising every year. In the view of one health worker, the vaccination statistics may not be accurate. Thus far, the secretariat has not undertaken any special vaccination campaign and that planned will cover only the areas with the highest incidence, in the peripheral sector.

Although the number of measles cases is high, Jose da Silva Guedes, an adviser at the secretariat of health, has stated that there has been no

increase over last year. "The fact is during the winter and spring, as a function of the process by which the disease is transmitted, there is an increase both in the number of cases and in the percentage of patients who must be hospitalized."

In January of this year, 182 cases, representing a 45 percent hospitalization rate, were treated at the Emilio Ribas Hospital. In July, 64 percent of the 338 cases had to be hospitalized. Jose da Silva Guedes also explained that normally, only those children who, in addition to measles, are suffering from dehydration or pneumonia, are hospitalized. The children hospitalized are generally undernourished as well.

5157
CSO: 5400

BRAZIL

OUTBREAKS OF YELLOW FEVER IN BRAZIL

Immunization Against Yellow Fever

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 Aug 78 p 14

/Text/ The minister of Health, Paulo de Almeida Machado, spoke yesterday about the need for vaccination against sylvatic yellow fever because a fresh outbreak of the disease is being recorded in the entire American continent. Although declaring that only seven cases were confirmed in Brazil in 1978, the minister recommended that all people be vaccinated before entering the jungle.

According to Almeida Machado, the area made up of the states of Amazonas, Para, Acre and the territories of Rondonia, Roraima and Amapa is considered in a state of strict inspection, while the area of Mato Grosso, Goias and eastern Maranhao is considered in a state of alert. There is no risk in the major cities because only sylvatic yellow fever is involved.

The vaccine, which is free, protects for at least 10 years and is administered in a single dose, which can be obtained in various branches of SUCAM /Superintendency of Public Health Campaigns/. The minister's appeal will be published in the newspapers today, as an announcement of the Ministry of Health.

With the making public of the report of the Ministry of Health, it is finally recognized that government health agencies in Para were systematically denying the existence of epidemic outbreaks of yellow fever in various regions of the state. SUCAM identified eight cases of death this year, but it admits itself, it has received numerous reports of supposed cases which were almost always fatal, which were not confirmed when investigations were held by the Evandro Chagas Institute, which specialized in research in tropical diseases and is the only organization officially recognized for this type of work in the area.

The experts recognize the difficulty in really finding out how many cases have already occurred. "The majority of the persons attacked are in the interior of the jungle and an official record is not made, even when they die. For every case which SUCAM or any other institute finds out about, there are at least five other incidents which are never recorded, perhaps even many more." According to an expert in the field, 40 fatal cases of yellow fever could have occurred this year in Para.

The most recent case occurred in the municipality of Irituia, where two persons were affected, one of whom died and the Evandro Chagas Institute is investigating in the area. The clearing of the jungle to create pastures for livestock projects, most of which are being financed by SUDAM /Superintendency for the Development of the Amazon Region/, is cited by experts as the main cause of the cases of yellow fever in the area. The researchers also fear that migrations of the mosquito which transmits the disease, the "hemagogue," are taking place because of these clearings, which are most frequent in the area made up of the south of Para and the north of Mato Grosso and Goias.

In addition to attacking the worker when the jungle is cleared, the mosquito now can be moving to other areas, causing an increase of cases of the disease. It is impossible to eradicate the mosquito, since it would be necessary to fell the entire jungle to accomplish this.

SUCAM Announces Intensification of Measures on Border Areas

Rio de Janeiro O GLOBO in Portuguese 6 Aug 78 p 13

/Text/ Porto Velho, Rondonia (O GLOBO)--SUCAM announced yesterday in Porto Velho that it is taking measures to increase inspection on the frontiers, especially in the localities of Velhena, Guajara-Mirim and Costa Marques, observing the recommendations of the Ministry of Health, to avoid an outbreak of sylvatic yellow fever in the area.

From now on according to reports from medical worker, Raul Diniz, director of the agency here, whenever a case of death is recorded, which is caused by a not clearly identified disease, in a period of less than 10 days, counting from the date when the victim began to show the first signs of disease, SUCAM will request the permission of the deceased's family to take a sample

of hepatic tissue from his body. That section of the deceased's liver will be sent to Manguinhos, where analyses will be made to find out whether the death was caused by yellow fever or not.

Raul Diniz said that when yellow fever--whose symptoms are: fever of short duration, vomiting, jaundice and hemorrhage--attacks a person, there is no medicine which interrupts the clinical development of the disease and the victim dies in a period ranging from 6 to 10 days, starting from the date of inoculation with the virus.

Control

The SUCAM director in the territory explained that Rondonia is the region of western Amazonia, which has the highest rate of vaccination in proportion to the density of population. Since 1975, in the entire territory, there were vaccinated against sylvatic yellow fever--an urban type also exists, in spite of the symptoms and results being the same--a total of 178,270 persons, while 27,583 were immunized only this year by the month of June.

Even so, according to Raul Diniz, it still is necessary to vaccinate many people. Although he claimed he did not know the reasons why the ministry recommended a state of alertness in all of Rondonia, he hinted that perhaps the situation regarding yellow fever is not very good in the countries bordering on Brazil.

8490
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MALARIA, TUBERCULOSIS FATAL TO AMAZONAS REGION INDIANS

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 15 Aug 78 p 18

[Text] More than 100 Wawanaviteri Indians living on the banks of the Maia River, along the boundary between Brazil and Venezuela, died in June as a result of outbreaks of malaria and tuberculosis, according to a report from missionary Carlos Gali, who has worked with this Indian group for five years. In a report published yesterday in Manaus in PORAMPIN, a periodical put out by the CIMI [Missionary Indigenist Council], Father Carlos Gali says that from a group of about 400 Indians, the Wawanaviteri tribe has currently been reduced to a little over 200 as a result of these diseases.

At the beginning of June, some newspapers carried reports to the effect that these Indians were sick and that 60 had already died. However, the FUNAI [National Indian Foundation] disputed the death figure, giving assurance that it had sent doctors and large quantities of medicines to the regions for preventive care. According to missionary Carlos Gali, the FUNAI wants "to conceal the consequences of this tragedy, in an effort to avoid national publicity for its ill-fated Indian policy." He maintains that the FUNAI was warned some time ago about the problem of disease in the Maia River area, but that it took no steps whatever, mainly because the Indian station had been closed.

In Brasilia, the president of the FUNAI, Gen Ismarth de Araujo Oliveira, said that the Indian communities living on the Maia River were cared for by that body and the FAB [Brazilian Air Force], and that recovered patients are now being transported back to their settlements.

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BRIEFS

TRAINING FOR DISEASE CONTROL--Brasilia (O GLOBO)--Training of soldiers on the frontier to identify and control tuberculosis and leprosy, acquainting candidates selected to serve in those areas with those health programs and more frequent supervision of the programs by the Amazonas Health Department are some of the recommendations of the Seminar on Public Health for medical teams and military units on the frontiers between Brazil-Peru and Brazil-Colombia held recently on the 27 and 28 July in Tabatinga, Amazonas. In issuing the report, the Ministry of Health emphasized the importance of training of the soldier who is more established in the command, so that the programs may not experience any continuity problem, as well as the need to revive reporting of infectious-contagious diseases and the participation of MOBRAL /Brazilian Literacy Movement/ in medical education on the frontier. During the meeting, professors of the Federal University of Amazonas presented an investigation on the pathologies of the skin and fungi, found in Amazonas and an inquiry about verminoses which occur frequently in the area. /Text/ /Rio de Janeiro O GLOBO in Portuguese 5 Aug 78 p 8/
8490

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BRIEFS

CHOLERA STATISTICS--It has been learned in Bujumbura that 1,530 cases of cholera and four deaths were registered as of the end of July during the recent epidemic. New outbreaks have appeared in Kibumbu, 80 kilometers north of the capital, and in Rwibage, 60 kilometers to the northeast. Thanks to the quarantine measures and the emergency care given by the health team in the area, the four cases that have been noted there were rapidly cured and contained. [Excerpts] [Kinshasa ELIMA in French 6 Aug 78 pp 1, 7]

CSO: 5400

CANADA

DUTCH VISITORS ARE POLIO CARRIERS

Quebec LE SOLEIL in French 10 Aug 78 p A7

/Text/ Yesterday a 17-year-old visitor from the Netherlands was placed in quarantine in Chilliwack, British Columbia, while his 25-year-old cousin, a mushroom grower, suffering from paralytic poliomyelitis, was recovering in the hospital.

Examinations revealed that Jake Van de Pol, the first of seven people in Canada who have been diagnosed as having polio, had contracted this disease from his visiting Dutch cousin.

This cousin, who was contagious, was to have been sent back to Holland Tuesday, but the operators of the charter service, Martinair, refused to fly him until examinations show that he is cured.

Meanwhile, in the region of Norwich-Delhi near Woodstock, Ontario, where four cases were diagnosed and where 14 people were placed in quarantine as a precautionary measure under the Public Health Law, some Canadians of Dutch origin received threats on the telephone, according to the police.

Two brothers from Norwich were admitted to the hospital last week. On Monday laboratory analyses confirmed that Reick van Vliet, 24, had paralytic polio. His brother James, 14, may also have this disease, but the analyses have not yet confirmed this.

Another van Vliet brother, Cornelius, 21, has non-paralytic polio. A fourth victim, whose name was not released, was one of the 32 people undergoing tests.

All these people were in contact with the van Vliet brothers.

Fourteen Carriers

The health officials found 17 of the 32 people free of the disease, but found that 14 were polio carriers.

The minister of health, Mr Timbrell, said that they would remain in quarantine.

Dr Louis Grant of Norfolk County said at Simcoe that two of the 14 quarantined people are visitors who have recently arrived from the Netherlands.

The symptoms -- headaches, fever, stiff neck, and paralysis -- may take 21 days to appear.

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BRIEFS

DENGUE EPIDEMIC IN BARRANQUILLA--Barranquilla, Colombia, 30 Aug (EFE)--Health authorities reported here today that 200 persons have died in this coastal Colombian city as a result of the dengue epidemic. According to health officials, the highest mortality rate is in the suburbs of Barranquilla where unhealthy conditions are greatest in comparison with the port areas which have been fumigated to eradicate the mosquitos that carry the disease. Barranquilla, the main Colombian port on the Pacific Ocean, was declared in a state of emergency as a result of the dengue epidemic threatening the population of 1 million. [Excerpts] [Madrid EFE in Spanish 1638 GMT 30 Aug 78 PA]

CSO: 5400

REPORT ON MALARIA: STATISTICS, PREVENTIVE MEASURES

Djibouti LE REVEIL DE DJIBOUTI in French 20 Jul 78 p 2

[Article by Dr Ahmed Absieh]

[Excerpts] As early as October 1977, the political and epidemiological events taking place on the borders of the Republic of Djibouti caused us to review the different diseases that we might see in our country in the future. We observed that in Djibouti, malaria was a problem that must be faced squarely since the risk of an outbreak in certain areas truly existed.

The inventory of culicids which the Department of Hygiene and Epidemiology has been making since 1974 has shown the recent and almost permanent implantation of Anopheles Gambiae, the only vector of malaria in the country, in several wadis in the southern and western regions: the Ambouh (Ambouh-Douda), Atar (Atar) and Damergeog (Damergeog) wadis in the cercle [administrative district] of Djibouti; the Beyade (Guechamaie), Nakhal and Galdo-Assa (Assamo) wadis in the cercle of Ali-Sabien; and the Gami (Dikhil), Cheketti (Cheketti-Bondara) and Gobaad (As-Eyla) wadis in the cercle of Dikhil.

The epidemiological cycle of this disease required nothing more than the presence of carriers of gametocytes -- that is, potential swamp insects to carry the parasite responsible for the disease, which in our particular context is Plasmodium Falciparum -- in order for transmission to take place through the vector mosquito.

The constant entry of persons coming from regions in Somalia and Ethiopia with a high incidence of malaria also means a very high and constant risk for people not immunized for malaria, people mainly living along the different wadis in question. This also means that a new epidemiological situation exists for the country.

Statistical Information

Over 1,200 cases were registered in the nation during this epidemiological campaign and nearly 400 cases have already been found during the first 5 months of 1978.

Official surveys detected 396 cases (40 in January, 41 in February, 64 in March, 184 in April and 67 in May, with the latter figure pertaining only to the clinics of Araiba, 5, Ibrahim Balala, 4, and Ambouli, 58). Several hospitals have not yet turned in any report.

Preventive Measures

Within the particular context of our country, there is no traditional campaign to fight malaria or to eradicate it.

The prevention of the disease in Djibouti is confined to simple measures involving a fight against the vector and the larvae. However, such measures are very sporadically applied, mainly during the heavy rains and in areas which constitute high-risk breeding grounds for the mosquitoes.

As for measures relating to the "Nivaquine" campaign during this period of epidemic (every person would take a daily dose of Nivaquine as a precautionary measure), they would entail expenditures of several million FD [presumably Dahomean francs] by the national budget and would consequently have to be freely supported by persons who follow them and make a strict rule of them.

Remission

In conclusion, one may observe the following after the investigation and research by our country's entomological research workers: first of all, the ubiquitous nature of the anopheles species, which has been found everywhere where studies were done; and second, the fact that the epidemic we have just experienced is closely linked to the accommodation of refugees from regions with a high incidence of malaria.

There has also been a very clear remission of the disease recently in our country due to the great summer heat and the khamsin (burning, dry wind from the desert), factors which discourage the hatching of larvae and the survival of mosquitoes.

Emphasis should therefore be placed on the fact that despite the annoying and burdensome social and economic consequences that this great and fearful African disease might engender, the people living in Djibouti must realize that the cycle for the transmission of the disease have been practically broken and that the risk of contamination is now minimal.

In addition, a project for the establishment of an autonomous antimalaria team within the Department of Hygiene and Epidemiology (equipped with personnel and material and technical means) will very soon be submitted to the government for its approval, naturally taking into account the special context of Djibouti, an epidemiological entity that is part of the great Somali-Ethiopian whole.

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BRIEFS

PRECAUTIONARY MEASURES AGAINST CHOLERA--The Ministry of Health has taken precautionary measures to protect Egypt against cholera, which is now spreading in some of the neighboring countries. Instructions have been given to all the health departments to maintain maximum alert so as to prevent the disease from reaching the country. A study seminar has been organized for 3000 doctors in rural health units for the control and implementation of precautionary measures. Also, a comprehensive precautionary plan has been drawn up to deal with the situation, including the purification of drinking water, maintaining strict control on those entering the country from infected countries and the immediate isolation of suspect cases. Protection and treatment training sessions have also been held and doctors in health protection units have been ordered to maintain maximum vigilance. A 24-hour protection operations room has been set up under the direction of Dr Ahmad Muhammad al-'Aqqad, health under secretary for protection. [Text] [Cairo AL-AHRAM in Arabic 21 Aug 78 p 1 LD]

BILHARZIA PATIENTS CURED--About one million citizens have been cured of bilharzia, Dr. El Motaz Beilah Mubarak, the Undersecretary of the Ministry of Health, said yesterday. He added that 2 million more are being examined thoroughly so as to detect the disease in its early stages. The Ministry of Health has spent about 12,000,000 dollars to combat Bilharzia in the Governorates of Upper Egypt in collaboration with specialised international organisations. [Text] [Cairo THE EGYPTIAN GAZETTE in English 22 Aug 78 p 3]

CSO: 5400

BRIEFS

DENGUE EPIDEMIC IN GUATEMALA--Guatemala City, 2 Sep (AFP)--Health minister, Roquelino Recinos Mendez, said here today that a "dengue" epidemic has broken out in southern Guatemala, and that at least 20,000 persons have been afflicted. The official said that the sickness may be fatal to adults as well as children if not attended to in time and that health brigades have been sent to cure those afflicted and keep the epidemic from spreading. Recinos Mendez said that dengue first attacked an area in Honduras, then one in El Salvador, and has now spread to southern Guatemala. [Text] [Paris AFP in Spanish 2052 GMT 2 Sep 78 PA]

CSO: 5400

EMERGENCY DECLARED IN SAN PEDRO SULA DUE TO DENGUE

Panama City ACAN in Spanish 1625 GMT 29 Aug 78 PA

[Text] San Pedro Sula, Honduras, 29 Aug (ACAN-EPE)--A state of emergency was declared today in this northern Honduran city due to the very high incidence of dengue, a disease which has already killed 10 persons.

Public health and social welfare authorities indicated that almost 80,000 cases of the disease have been reported in the economically active population. They added that such an epidemic is very harmful to the national economy.

Far from bringing the dengue epidemic under control by house-to-house and air fumigations, the 'Aedes a Egypti' mosquitos, which transmit the disease, seem to have multiplied.

The situation is not only alarming in San Pedro Sula. The nonobservance of an adequate quarantine has permitted the spread of the disease to other areas of the country. It is believed that only southern Honduras is free from the disease.

In Tegucigalpa there is already talk about undertaking a neighborhood by neighborhood and air fumigation campaign although the incidence of reproduction of the carrier mosquito is six times less in Tegucigalpa than in San Pedro Sula.

One million lempiras ($500,000) have been allocated to combat the 'Aedes a Egypti' mosquito in San Pedro Sula, but it is estimated that many more millions (of lempiras) will be needed to eradicate the dengue epidemic.

Modern machines were purchased in the United States in order to make the fumigation campaign, which is using a 96-percent solution of malathion, more effective.

CSO: 5400

BRIEFS

ENCEPHALITIS SPREADS--Durgapur, Aug 18--Encephalitis which has claimed 112 lives in the industrial and agricultural parts of Burdwan has spread to Bankura and Birbhum. The District Medical Officer, Bankura, said today that so far 42 people had died of the disease. According to him Anti-Encephalitis vaccine could not be administered to the people in the affected areas because of its non-availability. The officer added that the Government had been told about this a fortnight ago. Villages falling within the jurisdiction of Dubrajpur, Ilambazar, Khairasole, Suri and Mohammad Bazar thanas are among those affected in Birbhum. Of the 15 people affected here, nine died. [Text] [Calcutta THE STATESMAN in English 19 Aug 78 p 3]

CHOLERA EPIDEMIC IN BIHAR--In Nawadah District in Bihar cholera has broken out in an epidemic form in a number of villages. So far 44 persons have died. Precautionary measures have been taken to control the epidemic. [Text] [Delhi Domestic Service in English 0830 GMT 26 Aug 78 BK]

IMMUNIZATION PROGRAM --The union health ministry's programme for immunization of children against diptheria, tetanus and whooping cough has been given high priority in plan schemes for the current year of 1978-79. A total number of 22 million children will be vaccinated against these diseases during the year. Five million of these children enrolled in the first two classes of primary schools in the country will be immunized against diptheria and tetanus under a special project for the current year which forms part of the government's activity related to the international year of child in 1979. An additional amount of rupees 3.7 million has been sanctioned for this purpose. The remaining 17 million children are being covered by the annual plan for the year. [Excerpt] [Delhi ISI in English 1442 GMT 28 Aug 78 BK]

CSO: 5400

BRIEFS

CHOLERA UNDER CONTROL--It has been announced today that the disease El Tor cholera has been brought under control in the townships of Minab and Genabad and that there is no cause for any anxiety whatsoever. In order to prevent this disease the Ministry of Health and Welfare has called on the people to observe all hygiene conditions. [Text] [Teheran Domestic Service in Persian 0900 GMT 28 Jul 78 LD]

CSO: 5400

BRIEFS

CHOLERA CASES--Baghdad, 3 Aug--The Health Ministry announced today that three cholera cases have been identified. Two citizens carrying the cholera microbe were discovered in the Suq ash-Shuyukh Qada in the Dhi Qar Governorate in southern Iraq. A responsible source in the ministry told INA that the sick are in no danger and no deaths have occurred from the disease. He said that health authorities continue their large-scale campaign in the Dhi Qar Governorate and the nearby governorates. A close watch is being maintained, and drinking water has been examined. He stressed that conditions are reassuring. Early this week two cholera cases were discovered in the Dhi Qar Governorate. [Text] [Baghdad INA in Arabic 0820 GMT 3 Aug 78 JN]

CSO: 5400

BRIEFS

CHOLERA FOUND--Four more cholera carriers and nine suspected cases have been detected in Pahang State. The number of confirmed cases in the state is 25. In Kelantan State, 2 more cases of cholera have been detected, bringing the total to 299. [Kuala Lumpur Domestic Service in English 1130 GMT 24 Aug 78 BK]

CHOLERA INFECTED AREA--Georgetown is still a cholera infected area following a report of a carrier case on Friday [25 August]. According to the Penang director of medical and health services, Dr Maji Ahmad Shah, the premises of the carrier at Kampung Malabar area have been disinfected. So far there have been 113 cholera cases and 42 carriers in the state. [Text] [Kuala Lumpur Domestic Service in English 1130 GMT 27 Aug 78 BK]

CHOLERA CONFIRMED--Four confirmed cases of cholera were reported in Pahang in the last 24 hours. Three cases were reported from Kuantan and the other in Pekan. Another person in Pekan was suspected of having contacted the disease. [Kuala Lumpur Domestic Service in English 1130 GMT 29 Aug 78 BK]

CHOLERA CASES--Kuantan, Pekan and Lipis in Pahang state are to be declared cholera-infested areas following the detection of 20 more cases in those districts over the past 24 hours. Of the 20 cases, 15 are suspected to be suffering from cholera, while five others are carriers. The total number of cases in the three districts being treated in hospitals stands at 98. [Kuala Lumpur Domestic Service in English 1130 GMT 23 Aug 78 BK] Two more cholera cases have been reported in Kelantan, bringing the total so far to 293. The latest cases were from Kota Baharu and Tumpat districts. Out of the 293 cases, seven persons are still undergoing treatment at the Kota Baharu general hospital. [Kuala Lumpur Domestic Service in English 1130 GMT 17 Aug 78 BK]

CSO: 5400

VACCINATION CAMPAIGN IN MAPUTO PROVINCE

Maputo NOTICIAS in Portuguese 29 Jul 78 p 1

[Text] August will mark the start of the National Vaccination Campaign in Maputo Province. The campaign has already been underway for about 2 years throughout the country. In its first phase, the campaign will cover the districts of Matutuine, Namaacha, and Marracuene, after which the work will continue in the remaining districts until Greater Maputo is reached. This will take about 2 months.

The above information was provided to our reporters by Caseiro da Rocha, provincial health director in Maputo, during an interview that included a discussion of matters related to the preparations now underway for beginning the last phase of the National Vaccination Campaign.

The provincial health director told us that the National Vaccination Campaign is one of the ways in which the party's directives for the health sector are being implemented. The party established preventive medicine as the current priority. Within that framework, the first decision made by the health organizations was to undertake dynamization of the construction and correct use of latrines, a program that has been progressing smoothly thanks to the high degree of awareness shown by the population.

A second decision aimed at implementing the party's directives involved the start of the National Vaccination Campaign, a program that has been successfully underway since 1976.

To carry out that campaign, which began in the provinces of Cabo Delgado, Niassa, and Tete and then moved south until the southern provinces were reached, a great deal of time was spent on preparations, during which contacts were made with organizations under WHO, especially UNICEF, the organization that financed the operation.

The purpose of the campaign is to reduce the high incidence in our country of certain illnesses which have even caused the death of many people, especially children. As a result, the National Vaccination Campaign consists of

administering vaccines against tuberculosis, measles, tetanus, and, for the last time in Mozambique, smallpox.

Caseiro da Rocha said, "The campaign exceeded all our expectations, with the result that in some provinces more than 90 percent were vaccinated, and there is even one place where 97 percent of the population has now been vaccinated." He added later that "the situation is so brilliant that when the director general of WHO came to Mozambique, he was quite impressed and expressed his total support for the campaign, and he also confirmed in the field the data provided him."

In order to check on the percentage of the population that has been vaccinated, a group of experts makes an on-the-spot check 1 month after the procedure is completed, and its work is supervised by WHO's representatives in Mozambique.

The provincial health director said, "All this success is due to the organizational capacity that exists in our country, and it is due to the action by our vanguard party, since without FRELIMO's support the campaign would not have reached the numbers that it has."

Campaign in Maputo Province

Now--beginning in the middle of next month [August]--the National Vaccination Campaign will begin its final phase when it reaches Maputo Province, the most difficult in the country. It is the most difficult because it is the province that has the greatest number of frontiers with other countries. This means that the border inhabitants are rooted in certain customs that do not accord with the line of orientation laid down by our party and government. It is the most difficult because the capital has the greatest population density in the country, the most difficult because the capital was the center of reactionary forces during the colonial period, and, finally, the most difficult because our frontiers separate us from countries which follow a political line that is the opposite of ours.

According to the health organization's program, and in view of the fact that the vaccination process in the other provinces took less time than expected, the National Vaccination Campaign in Maputo Province was to have started last June. But because the brigades working in Manica and Gaza provinces have encountered certain problems preventing them from returning to Maputo before next month, the start of the campaign in this province has had to be delayed until August.

Meanwhile, in order to prevent any more delays in the campaign, the plan is to start working in Maputo as early as the first few days of August. For that purpose, all of the personnel that will take part in the work has already been mobilized so that vaccination of the Matutuine District's inhabitants can begin by 15 August. Next in line will be the inhabitants of the Namaacha and Marracuene districts.

So far, however, all of this is still just a plan, seeing that the operation will depend to some extent on the arrival of the brigades that are still outside Maputo. This is because the health organizations intend to begin vaccinating the inhabitants of all the districts at approximately the same time, so that all available human and material resources can be mobilized for an all-out effort in Greater Maputo.

The National Vaccination Campaign has been carried out in the other provinces with a success that has been verified by the international organizations supporting us in this effort. This means that our country has a responsibility that all of us must assume by participating actively and consciously in this last phase.

If UNICEF is giving us its financial support, the reason is that it expects us to take the greatest advantage of that support. Several experts from that organization have been making regular visits to the localities where the National Vaccination Campaign is being carried out and verifying the success that this operation has been.

We all have the obligation to help insure that when we reach the end of the campaign, we will be able to say that it was a total success and not a success in just some of the provinces.

11798
CSO: 5400

BRIEFS

VACCINATIONS IN CHIBUTO DISTRICT--About 12,450 persons, including children and adults, were vaccinated by the vaccination brigade that was recently active in the communal settlement of Massacre de Mapai in the Chibuto District's administrative center. It should be noted that more than 198,307 persons in that district have now been vaccinated against tetanus, smallpox, measles, and tuberculosis. [Text] [Maputo NOTICIAS in Portuguese 22 Jul 78 p 5] 11798

VACCINATIONS IN LIMPOPO DISTRICT--In the Limpopo District, where brigades from the National Vaccination Campaign are now working, 71,408 persons have now been vaccinated in the settlements of Chicotane, Chilembene, Chiquelane, and Lionde. Only four localities remain, after which the work in that district will be complete. It should be recalled that the vaccines provide protection against tuberculosis, measles, and smallpox. [Text] [Maputo NOTICIAS in Portuguese 6 Aug 78 p 2] 11798

VACCINATION CAMPAIGN IN NAMPULA--Nampula, 7 Aug--The expanded vaccination program, which is designed to consolidate the National Vaccination Campaign, will soon go into operation in this province. Unlike the National Vaccination Campaign, the expanded program will not have a time limit. It will cover anyone at any time who needs to be vaccinated. The objective of the expanded vaccination program is to reduce mortality and disability due to tuberculosis, measles, whooping cough, tetanus, diphtheria, and poliomyelitis. The expanded program will cover about 80 percent of the population in Nampula Province, including children under 5 years of age, infants born since the National Vaccination Campaign, pregnant women, school-age children, and adults in general (the latter against tuberculosis only). In this province the expanded vaccination program will begin in the districts of Erati, Monapo, and Nampula. It will be financed by international health organizations in its initial phase, but our country's government will gradually assume responsibility for the cost. [Text] [Maputo NOTICIAS in Portuguese 8 Aug 78 p 4] 11798

CSO: 5400

DRIVE AGAINST YELLOW FEVER RENEWED

Lagos DAILY TIMES in English 29 Jul 78 p 5

[Text]

THE Federal Ministry of Health has launched crusade against yellow fever.

This followed the discovery that many persons who were thought to be suffering from hepatitis, were actually suffering from yellow fever.

Laboratory tests conducted by the World Health Organisation (WHO) officials in the war-affected areas of the country have revealed that samples of patients suspected to have had infective hepatitis were discovered to be yellow fever cases.

Many patients have died of the disease.

Following the discovery, the ministry, in conjuction with the Anambra and Imo State Governments, whose citizens were mostly affected by the disease have mounted anti-yellow fever innoculation campaigns.

The campaign was meant for the entire populace of both states to wipe out any more traces of the disease.

The Imo State Government started its innoculation two years ago. It later came to a halt as a result of shortage of vaccine.

The campaign has, however commenced in Anambra State following the availability of the materials.

In Onitsha, more than 8,000 inhabitants have so far been innoculated against the disease.

The principal health superintendent for Onitsha, Mr. R. C. Ezeanyika who was supervising the innoculation told newsmen that people were responding effectively to the campaign

Mr. Ezeanyika said that announcements had been made in churches and other public places in the town for people to come for the innoculation.

He then appealed to all those who had not been innoculated to come forward for the exercise.

The superintendent said that the innoculation officials would move to Nnewi after they had finished with Onitsha at the beginning of next month.

CSO: 5400

BRIEFS

HEILUNGKIANG DISEASE-PREVENTION MEETING--The provincial leading group in charge of prevention and treatment of local diseases under the Heilungkiang Provincial CCP Committee recently held an enlarged meeting in Harbin to discuss and work out a program on the prevention and treatment of local diseases in Heilungkiang. It was reported at the meeting that prevention and treatment of local diseases had been slow in Heilungkiang in recent years due to sabotage by the "gang of four" and their trusted follower in northeast China, and due to a reduction in the number of prevention and treatment centers and personnel. The meeting stressed the necessity of strengthening scientific research in order to eradicate local diseases. The meeting was presided over by Wang I-lun, secretary of the Heilungkiang Provincial CCP Committee and head of the provincial leading group in charge of prevention and treatment of local diseases. Wang also made a summing-up report at the meeting. [Harbin Heilungkiang Provincial Service in Mandarin 1100 GMT 6 Jul 78 OW]

CSO: 5400

DIPHTHERIA REPORTED IN THE AZORES

Lisbon DIARIO DE NOTICIAS in Portuguese 11 Aug 78 p 11

[Text] Several cases of diphtheria, which on Tuesday claimed the life of a 3-year-old child (Ilha das Flores), have appeared in the Azores and are now being fought with the antidiphtheria vaccines and serium which have arrived in Angra do Heroismo in the meantime.

Early in the morning, the day before yesterday, an Air Force airplane brought the first serum needed for two children evacuated from Ilha das Flores and admitted to the hospital at Angra do Heroismo.

Meanwhile, the necessary doses of vaccine and serum arrived in that archipelago and vaccinations have already begun in Ilha das Flores.

Up to now a half dozen cases of diphtheria have been found in Terceira and a few more in Ilha das Flores, beginning with the child who died in the Paja Grande parish, where a large quantity of fruit is eaten, generally without hygienic precautions.

An Air Force "Aviocar" arrived yesterday in Terceira on board which was a resident of Ilha das Flores suspected of having the disease.

In the Faja Grande parish, where 10 days ago the child who finally died became ill, many people usually eat fruit without washing it first.

As far as has been determined, the child's parents were not aware of what the disease was or what the most suitable treatment was.

After the death occurred, two more cases were found, the two sick persons being flown to Terceira. Subsequently there were two more cases in the same paris, while suspicions about the spread of the disease began to grow in other parishes.

Meanwhile, the disease was also found in S. Miguel, where a woman resident of the Faja de Cima parish in the suburbs of Ponta Delgada was hospitalized.

The Existence of Cases in Terceira Denied

According to the Terceira health inspector, the only cases of diphtheria being treated on the island are those of the persons from Ilha das Flores. Questioned by the PORTUGUESE NEWS AGENCY [ANOP], the inspector denied the existence of any outbreak of diphtheria in Terceira.

Among the persons from Ilha das Flores who have been admitted to the hospital of Terceira, there is only one confirmed case of diphtheria; a 6-year-old girl with heart trouble.

No case of diphtheria was found among the nine members of the dead child's family in Ilha das Flores, since they were all treated promptly.

The health inspector of S. Miguel explained also that there is no fear of any epidemic in that island where more than 50 percent of the population is vaccinated against diphtheria.

8908
CSO: 5400

BRIEFS

OUTBREAK OF CHOLERA DENIED--Doha, 19 Aug--Qatari Public Health Minister Khalid ibn Muhammad al-Mani' has asserted that the State of Qatar is completely free of the cholera epidemic. He denied reports that seven cases of cholera were discovered in Qatar. He said that these reports are absolutely untrue and that they are baseless. He added that the State of Qatar adopted precautionary measures to prevent the spread of this epidemic at the beginning of the summer season. [Text] [Doha QNA in Arabic 1225 GMT 19 Aug 78 NC]

CSO: 5400

EPIDEMIC OF 'CINDERELLA DISEASE' FEARED

Johannesburg THE STAR in English 18 Aug 78 p 4

[Text]

A form of venereal disease that is very hard to detect and totally resistant to penicillin is feared to be reaching epidemic proportions in South Africa.

Medical experts yesterday expressed growing concern at the increase in "the Cinderella disease," as overseas doctors have dubbed non-gonococcal urethritis (NGU).

The disease differs from ordinary gonorrhoea in that no gonococcus bacteria are present. The initial symptoms are relatively mild, but are unaffected by penicillin—the traditional cure for gonorrhoea.

"There was a time when we thought we had VD beaten,' said Professor Harry Seftel, head of the department of African diseases at the Witwatersrand University. "But this new strain has grown quite insidiously through the present day's sexual indulgence.

RESERVOIR

"There are no obvious symptoms and little discharge. But there is obviously an enormous reservoir of female carriers who are very hard to detect: even men may write off the effects as not worth worrying about.

"The disease is caused by a special kind of bacteria — the same as causes trachoma in the eye — that is not easy to get rid of.

There is no one-dose treatment for the disease, but it can be eliminated quite simply through a course of drugs lasting several weeks.

If left untreated, the infection can disappear — or it can lead to complications involving sterility in both men and women. Worse, it can be passed to babies during birth with resultant eye disease and pneumonia.

Mr Ron Ballard, a microbiologist at the SA Institute for Medical Research, said no accurate figures were available on the incidence of NGU in South Africa.

In Britain, where all cases must be reported, it was found to occur twice as frequently as gonorrhoea.

"In a short test at a clinic in Hillbrow, 63 percent of all patients were found to have urethritis — and of these more than half were non-gonococcal. The rate shows a marked correlation with socio-economic status, so we have reason to believe the overall proportion is actually higher," Mr Ballard said.

CSO: 5400

MENINGITIS CASES REPORTED THROUGHOUT SPAIN

Madrid YA in Spanish 18 Aug 78 p 28

[Article by Ricardo Medina]

[Text] The Undersecretariat of Health has published--in the weekly BOLETIN EPIDEMIOLOGICO--a report concerning the meningitis epidemic in Spain. The report states that the incidence of the disease has continued to be high in recent months. For example, a total of 2,561 cases were reported during the first 26 months of this year compared to 1,448 during the corresponding period of last year--an incidence sufficiently high to indicate that the disease has assumed epidemic proportions.

We contacted Dr Fernandez Turegano, the provincial director of the Department of Health in Madrid, who told us: "At the present moment the situation as well as the number of cases being treated are completely normal. During the early months of the year and last Spring, however, the number of cases treated rose substantially because of the humidity and the increased incidence of colds and catarrh, which favor the development of the meningococcus.

"We must bear in mind," Dr Fernandez Turegano continued, "that ever since 1972--when the disease became epidemic throughout Europe--the number of cases treated in Spain has steadily declined. Despite everything, however, people continue to believe that someone who contracts meningitis will either die or be left in a feebleminded condition, but this is not true. Furthermore," he said, "there are more deaths today from measles than from meningitis."

Guipuzcoa Province the Hardest Hit

In Madrid a total of 35 cases were treated during the month of July and 15 during the first 2 weeks of August. The provinces recording the highest mortality rates are, in decreasing order: Guipuzcoa, 43.65 per 100 cases; Lugo, 32.36 per 100; Orense, 32.15; La Coruna, 26.80; Navarra, 24.82; Murcia, 24.07; Gerona, 23.08; Vizcaya, 21.03; Caceres, 20.85; and Teruel, 20.01. Nationwide, the report states, there have been a total of 160 deaths out of the 2,561 cases recorded to date in the nation as a whole. [all figures as published]

"The relationship between a particular province and the incidence of meningitis has nothing to do with climatological conditions," the provincial director of the Department of Health added. "The really important thing is to have the cases treated immediately," he said, "and the real causal relationship is therefore to be sought in the degree of isolation of the population of a province and also the promptness with which each case is diagnosed and the proper treatment begun--that is to say, treatment employing patience and special antibiotics. If the disease is diagnosed in time it virtually cures itself."

Meningitis attacks young people more readily than it does adults, because the latter have developed a greater degree of immunity to the meningococcus. This year an increase in the incidence of the disease has been experienced in all the countries of Europe, and of course the lower strata of society are always the hardest hit. With respect to the incidence of meningitis in the individual European countries Spain stands somewhere near the middle of the list, Dr Fernandez Turegano says.

On the subject of poliomyelitis, the weekly BOLETIN EPIDEMIOLOGICO reports that whereas the incidence of this disease was high during the first 4 months of this year, with a total of 54 cases being reported during that period, only 17 cases were reported in May and June, for an overall total of 71 so far this year.

10992
CSO: 5400

SYRIA

PREVENTIVE MEASURES FOR CONTAGIOUS DISEASES OUTLINED

Damascus AL-BA'TH in Arabic 27 Jul 78 p 2

[Article: "Comprehensive Campaign to Protect Citizens From Contagious Diseases"]

[Text] Minister of Local Administration Taha al-Khayrat has issued new instructions to protect citizens against contagious diseases and to prevent the infiltration of infected persons into the country.

In his instructions the minister asked the governors to generally give the subject of cleanliness their continuing and close attention and to follow it up personally. He also asked them to thoroughly supervise through various methods the activities of the health departments in the provinces as well as those of the sanitary affairs offices in the cities and marshal all available resources in this area by starting a campaign of general cleanliness and establishing a cleanliness week in coordination and cooperation with the local administration bodies, the popular organizations, the health council in the province and the rest of the agencies concerned so that effective popular participation will be included.

The measures to be employed will include:

--setting up programs for health departments in the provinces, the sanitary affairs offices in the cities, and other agencies connected with public health matters, following up implementation of these programs in a coordinated and integrated fashion and implementing instructions issued by the Ministry of Health in this regard.

--forming a sanitary committee in each province which will devote full time to supervising and following up implementation, becoming acquainted with the problems and suggesting solutions which may be needed. The committee should be provided with a vehicle to enable it to carry out its missions with all necessary speed.

--the construction of shelters in all provinces at points near the border crossings with the neighboring states in order to examine those coming in from countries where there are epidemics of contagious diseases in an effort to ensure that these people are healthy and are not carrying disease-causing bacteria. These shelters should be equipped with several beds and other necessary equipment. Implementation should begin with coordination sith the agencies concerned in the provinces and expenses should be covered from the independent budget reserves.

--giving the matter of drinking the utmost priority, following up the analysis of water samples at specified intervals and designating those that are contaminated so that the competent authorities can, under the supervision of the governors, take prompt and decisive action.

--guaranteeing that drinking water will be inspected to ensure that it is fit for drinking and free of disease-causing bacteria.

--sweeping and spraying the public roads, squares and parks, disposing of the waste and garbage and spraying with insecticides whenever this is deemed necessary.

--inspecting the meats in the slaughterhouses and in the places where they are sold in order to make sure that they are fit to eat and that those handling them are healthy. Personnel who are involved in preparing and selling meals and drinks, especially street vendors, will be examined.

--inspecting the hotels and coffeehouses as well as restaurants, bakeries and other public places where food is sold.

--imposing necessary cleanliness and sanitation measure in public transportation.

6945
CSO: 5400

BRIEFS

HEALTH FIGURES--Dr Praphon Piyarat, deputy public health minister, has reported that during the period 30 April to 3 June there were 31,688 people throughout the country who were suffering from some 29 diseases. Some 602 people suffered from cholera. From the beginning of the year to 3 June, 3,334 people were stricken by haemorrhagic fever. An average of 10 people reportedly are stricken with polio per week. [Bangkok Domestic Service in Thai 1300 GMT 28 Jul 78 BK]

CSO: 5400

PRECAUTIONS AGAINST CHOLERA RECOMMENDED

Istanbul HURRIYET in Turkish 10 Jul 78 p 6

[Article by Saygi Ozturk: "Summer Is Here, So Is the Danger of Cholera"]

[Text] Ankara (HURRIYET)--Cholera, officially identified as "intestinal infection" in public pronouncements for fear of causing panic and harming the national economy, is very much in the minds of concerned authorities now that summer is here. The Ministry of Health and Social Aid issued illustrated pamphlets in an effort to alert the public against the disease.

Cholera outbreaks occur in areas of inadequate sanitation and below-standard living conditions. The cholera bacterium enters the human body through the mouth, generally on vegetables and fruit consumed in summer time. Officials insist on calling the disease "intestinal infection," but it is killing people by the score.

Officials of the Ministry of Health and Social Aid refused that the disease that killed 23 children in Siirt was anything other than "intestinal infection." They maintained that people who went abroad on a pilgrimage last year were tested repeatedly to determine if they were carriers, and that no "cholera" cases were discovered in Turkey so far.

Communication and Spread of the Disease

Cholera plagues humans only, and in a majority of cases it reaches humans in water. Hands play a major role in the transmission of the germs into the human mouth.

When someone touches the bed linen, clothes, utensils, or any other item contaminated by a sick person's feces or vomit, the germs get on his hands and become lodged between his fingers and under his fingernails. If the hands are not washed properly with soap, the germs get into the mouth. Not only the person whose hands are contaminated, but also everyone else who consumes the vegetables, fruit, beverages, and other food items handled by him are likely to get infected.

Fruit and vegetables consumed uncooked, such as lettuce, cucumbers, tomatoes, carrots, and radishes, are common carriers of cholera. Using waste water and human feces to irrigate and to fertilize vegetable and fruit gardens contaminates the vegetables and the fruit.

Symptoms of Cholera

Officials from the Health Affairs General Directorate of the Ministry of Health and Social Aid described the symptoms of cholera as follows:

"Cholera symptoms appear a short time after the bacteria enter through the mouth into the human body. The length of time that elapses before the symptoms appear, which we call the incubation period, varies from 3 or 4 hours to 5 days. The intensity of the symptoms and the length of time a patient remains sick also vary according to the severity of the disease. A person may get sick abruptly, or gradually. There are vomitting without nausea and diarrhea without cramps. The initial vomit contains the remnants of whatever has been consumed earlier, and the initial diarrheic discharge includes fesces. Discharges gradually turn watery and the color becomes like rice water's. In rare cases, abdominal cramps occur. Diarrhea and vomiting begin abruptly. Hands become wrinkled as if they have been in water. The body gets cold, the voice becomes hoarse. Meanwhile, the heart grows so weak that it is very difficult to feel the pulse."

Precautions

Officials from the Health Affairs General Directorate urged people to contact the government physician in their area, or the nearest police station, when they suspect they may be infected. These officials say, cholera patients need special care which they can get only in a hospital.

People who have been in contact with cholera patients are placed under observation for a period of 5 days, beginning from the time of first contact with the infected person. On the question of precautionary measures against cholera, health officials made the following recommendations:

*In cholera infected areas, the primary step to be taken is to ensure that water is not contaminated with human waste. Damaged water pipes must be repaired to prevent seepage from the outside.

*Wells, fountains, springs, and all covered or open water sources are potentially dangerous because they are easily contaminated by seeping waste material. Water should not be used or consumed without first boiling it.

*Care must be taken to keep the water in irrigation trenches, canals, and similar places clean. No one should be allowed to bathe, or wash clothes in those waters.

*Cold water from unknown sources, lemonade, and soft drinks, consumed abundantly in summer, can transmit cholera. It is much wiser to drink hot tea.

When we boil the water to make tea, we sterilize the water. Ayran [a drink made by diluting yogurt], if made with unboiled water and fresh yogurt, can also be risky.

*Pots and pans, and other kitchen utensils must be cleaned thoroughly by immersing them in boiling water. If utensils are washed with contaminated water, food and beverages put in them also become contaminated.

*Food and beverages must be protected from flies and other external contaminators.

*Uncooked vegetables and fruit should not be consumed before they are carefully washed with chlorinated water, or water which you know to be pure. Cholera bacteria can remain in the folds of lettuce, carrots, radishes, and similar vegetables even when they are carefully washed. It should be remembered that anything consumed uncooked is a potential transmitter. Those food items may have been clean originally, but contaminated later by dirty hands, utensils, or flies. Restaurants and shopw where food items are sold must be placed under a strict control.

*Another effective precautionary measure is keeping fingernails short and washing hands properly with soap and water before each meal. Food items must not be handled with dirty hands. Hands should not touch the mouth before they are washed.

*Uncovered toilets, or toilets which discharge waste water into the open must be repaired. Waste water seepage into water sources must be prevented. Flies must not be able to get to human waste.

*The habit of discharging near water sources must definitely be abandoned.

7244
CSO: 5400

FLU EPIDEMIC HITS URUGUAY: RESEMBLES RUSSIAN, TEXAS TYPES

Ministry Differentiates Viruses

Montevideo EL PAIS in Spanish 5 Jul 78 p 1

[Text] The flu epidemic that hit the entire country is evidently the result of two viruses detected for the first time in 1977 in the United States and the Soviet Union. This information was given to EL PAIS last night by the head of the epidemiological department of the Office of the Secretary of Public Health, Dr L. Perez Moreira, who warned that the Russian microorganism is not related to the Siberian virus. He maintained that the epidemic is now slowing down and that there are now cases of colds with minor complications. Finally, he said that the virus samples sent to the United States and Mexico for technical examination will come back to Uruguay this month.

The two viral agents are evidently responsible for the flu epidemic that has hit the entire country in recent weeks, the director of the Department of Epidemiology of the Office of the Secretary of Public Health told EL PAIS. Dr Leonel Perez Moreira said that to date, Uruguayan laboratories have identified the A2/USSR/77 and A2/Texas/77 viruses, which were detected for the first time in the Soviet Union and the United States respectively last year.

Not Siberian

The official stated that the Soviet virus is not related to the famous pathogenic agent which appeared in the Siberian region, one that recently made the news because of its appearance in various regions of the world.

"Virus A2/USSR/77 is similar to a microorganism that was widespread internationally until 1957," he said. "That is the reason why persons over 30 are already immunized and are being attacked by the Texas virus."

He added that "persons under 30 do not generally have adequate defenses against the virus localized in the USSR in 1977 and usually fall ill for that reason."

Colds

Dr Perez Moreira went on to say that at the present time, the most acute phase of the flu epidemic has passed and that in the future, only simple colds are expected with fewer complications and those being minor in nature. "One indication is fever," he explained. "If the temperature is over 38°, then we are faced with a case of the flu; otherwise, it would be a cold. These are the cases now most frequently diagnosed."

When asked about the flu virus samples sent to the United States and Mexico for analysis at highly skilled scientific research centers, Dr Perez Moreira said that Public Health officials expect to receive the technical report in July. It has been delayed longer than anticipated for reasons unrelated to the office.

Critical Phase Over

Montevideo EL DIA in Spanish 6 Jul 78 p 7

[Text] The critical phase of the flu epidemic that began in May has passed almost completely, according to reports from official sources in the Office of the Secretary of Public Health.

The sources indicate that the state of health of the population is now good.

They also said that the intensity of the disease will gradually disappear beginning this month.

In general, if one observes the rules of care set forth by doctors, the outbreak is not dangerous and is considered normal for this period.

The spokesmen said that the situation is now under control.

The experts are also continuing their analyses in order to determine what virus produced the disease.

Care, Aftereffects

Montevideo LA MANANA in Spanish 9 Jul 78 p 15

[Text] Dr Leonel Perez Moreira, director of the Department of Epidemiology of the Office of Secretary of Public Health, said emphatically yesterday that the flu epidemic had been overcome and denied reports to the effect that there were serious aftereffects in some persons, such as heart attacks and other complications.

Vaccination

When Dr Perez Moreira was asked about the most suitable care and what precautions could be taken against this disease which generally appears with

the onset of winter, he said that unfortunately, the treatment of flu was the same as that applied 20 or 30 years ago: staying in bed, avoiding becoming chilled, taking simple medication for temperature and pain, maintaining the best possible hygiene and eating properly.

"It is not possible to vaccinate those suffering from the flu because the viruses are constantly changing," Dr Perez Moreira added. When asked about the usefulness of antibiotics in such cases, he said that they served no purpose. "On the contrary, antibiotics are harmful in treating the flu and could promote the appearance of much more serious cases."

Unknown Virus

The virus which caused this epidemic, or rather, the viruses that caused it -- two have been identified -- were practically unknown in Uruguay. They appeared in the Northern Hemisphere last year. Two different flu viruses were identified there: A2/USSR/78 and A2/Texas/77. Fortunately, the outbreak, which reached a peak in June, is now over for the most part and there remains only a high percentage of colds. "It was a common type flu with no other aftereffects. Its basic feature was that it affected a higher percentage of the population than in previous years, but its degree of seriousness was the same."

11,464
CSO: 5400

GOVERNMENT HOPES TO VACCINATE 80 PERCENT OF CHILDREN FOR MEASLES

Only 8,000 Children Vaccinated

Montevideo EL PAIS in Spanish 4 Jul 78 p 5

[Text] "The danger of an imminent measles epidemic persists in Uruguay as a result of the low rate of vaccinations registered during the 18 days of the operation," EL PAIS was told last night by the director of epidemiology of the Office of the Secretary of Public Health.

Dr Leonel Perez Moreira revealed that only 8,000 children were immunized during this entire period, an insignificant figure when one realizes that the Public Health Office expected to vaccinate 80 percent of all children between the ages of 6 months and 4 years living in the country. They total some 250,000.

Health Posts

"The Office of the Secretary of Public Health has taken every possible measure to see that coverage was maximum. Throughout the national territory, 90 vaccination stations have been in operation. The conditions have been created so that parents would become aware of the seriousness of the matter and take their children to be vaccinated for this extremely dangerous viral disease," the health official stated.

As EL PAIS was recently told by Dr Federico Salveraglio (formerly professor of infectious and contagious diseases at the School of Medicine), measles

is a disease caused by an extremely contagious virus and can be very serious in children under the age of 3 years. In all cases, it can lead to complications of varying degrees of severity (otitis, pneumonia, encephalitis) in children suffering from it.

Deaths

However, its effects can be even greater. It was officially reported last week that in a single year, there were 159 deaths in the country during critical periods as a result of the disease. This has caused national health officials to be constantly on the alert in order to prevent any possible epidemic.

"The vaccine used is extremely safe," Dr Perez Moreira said. "It has no aftereffects of any kind and is made from live viruses, which makes it very effective. Consequently, everyone should be sure of its immunizing capabilities and no more time should be lost. Time passes and it is essential that we reach the greatest possible percentage of children as rapidly as possible so as to prevent an epidemic, which is still avoidable," he said in conclusion.

Appeal to Public

Montevideo EL DIA in Spanish 6 Jul 78 p 7

[Text] Public Health officials repeated their appeal to the public yesterday that they go to the measles vaccination stations.

The summons is the result of the plan of prevention being put into effect by the Office of the Secretary of Public Health and has the sole purpose of "preventing the aftereffects which the disease can cause."

Public Health experts advise vaccination (or booster shots, depending on the case) for all children under the age of 4 years.

They pointed out that in recent days, the response of the population has not been what they had hoped for -- the instability of the weather has had a major effect on the decision of parents.

Several stations have been set up to handle the vaccinations (in our city and also in the interior).

In addition, Public Health spokesmen said that in October and November, there will be a massive campaign to vaccinate 400,000 children (between the ages of 12 months and 13 years) for German measles.

Despite the mild nature of the disease, authorities hope to achieve its total eradication on the national level.

Paysandu: Satisfactory Response

Montevideo LA MANANA in Spanish 7 Jul 78 p 12

[Article by Luis A. Nolla]

[Text] The population of Paysandu has responded satisfactorily to the appeal of Public Health authorities concerning the measles vaccination campaign.

The campaign is aimed at children between the ages of 6 months and 4 years, but it is pointed out that children under the age of 1 year will have to have booster shots.

This is due to the fact that children under 12 months of age do not have complete defense mechanisms and must therefore be innoculated again, LA MANANA was told by authorities at the Health Center of the Coastal School Hospital where the vaccinations are being given.

It should be added that this campaign, which is national in scope, has found that 80 percent of the population of Paysandu has already been vaccinated due to the fact that in our department, the campaign continues throughout the year.

55% Vaccinated, 20 August Deadline

Montevideo EL PAIS in Spanish 23 Jul 78 p 12

[Text] The Office of the Secretary of Public Health has arranged to extend the measles vaccination campaign that has been waged throughout the country since the middle of last month until 20 August.

This information was given to EL PAIS by the head of that office, Dr Antonio Canellas, who said that "the weather has prevented the people from responding as expected." As a result, only 55 percent of the children between the ages of 6 months and 4 years which the office expected to reach have been vaccinated during this period.

25,000 Children Vaccinated

The Public Health official said that "the plan set up by experts from the Department of Epidemiology was aimed at vaccinating 40,000 children throughout the nation. Consequently," he added, "34,000 doses were distributed to vaccination stations and private entities. To date, some 25,000 children have been innoculated: 55 percent of the number anticipated."

"In the face of these results," Dr Canellas continued, "with 15,000 children still to be vaccinated, in view of the fact that the people did go to the vaccination stations -- and if they did not do so in time, it was do to factors relating to the weather -- the Office of the Secretary of Public

Health has decided to extend the massive vaccination campaign aimed at this children's disease, which can have serious complications in susceptible youngsters."

Mutual Benefit Associations

Finally, Secretary Canellas emphasized the important contribution made to this operation by the mutual benefit associations which are vaccinating children for measles in the Montevideo area. "The number of doses administered totaled 371 in January of this year, and during the first two weeks of the campaign, the number rose to 1,788. This clearly demonstrates that Uruguayans have acted responsibly in responding to the appeal made by authorities and that the private sector has contributed its invaluable assistance in the area of collective medicine," he said.

11,464
CSO: 5400

BRIEFS

YELLOW FEVER EPIDEMIC DENIED--Dr Jose Manuel Padilla Lepage, public health director of the Ministry of Health and Social Welfare, has stated emphatically that no cases of yellow fever have been reported in Venezuela. The official was refuting certain news reports of an outbreak of yellow fever in Merida. [Caracas Radio Continente Network in Spanish 1000 GMT 9 Aug 78 PA]

CSO: 5400

ANTHRAX OUTBREAK GROWS INTO EPIDEMIC IN HA TUYEN PROVINCE

Hanoi NHAN DAN in Vietnamese 26 Jul 78 p 2

[Article by Mai Linh: "Anthrax Epidemic in Ha Tuyen Province"]

[Text] Bac Quang District in Ha Tuyen Province is being inflicted with anthrax, an epidemic that is very dangerous for domestic animals and fowls and people. The pocket of contagion started from Me Hamlet of Vo Diem Village in Bac Quang District. Due to a lack of urgent preventive measures, the disease has spread to Tan Quang Village, nearly 40 kilometers from the source of contagion.

We suggest that the People's Committee and Public Health Service of Ha Tuyen Province and the organs concerned join with Bac Quang District People's Committee in urgently taking any necessary measures to eradicate the epidemic and thus to properly protect the herds of domestic animals and fowls, as well as the health of the people.

5598
CSO: 4209

HO CHI MINH CITY CONDUCTS RAT ERADICATION CAMPAIGN

Ho Chi Minh City TIN SANG in Vietnamese 23 Jul 78 p 7

/Article by NM: "200,000 Rats Killed in 2 Nights"/

/Text/ TS, 22 Jul--For 2 successive nights on 20 and 21 July 1978, the entire city conducted the 1978 rat eradication campaign with preliminary results of 200,000 dead rats.

Compared with the results of more than 500,000 rats killed the campaign last November, these results indicate that the number of rats has clearly declined. Hygiene and epidemic prevention sector cadre indicate that gaining experience in killing rats with chemicals during the recent campaign, local areas have well-conducted methods of mixing and setting bait and disposing of rat carcasses. Relying on the results of rats killed during this phase and the disease situation during the recent past, the number of rats in the city has clearly declined.

During this phase, there was not quite 20 percent of the cases of domestic animal poisoning compared with the rat campaign last year and not one case of a human poisoned in rat eradication. This was a good result recorded on 21 July when the rat eradication phase concluded.

Especially concerning the disposal of rat carcasses, local areas during this phase with the active contribution of Red Cross personnel carried out rapid, orderly and sanitary disposal.

The 1st, 3rd, 8th and 10th precincts and Tan Binh District conducted good rat eradication and these locations during the first night, 20 July, each had from 15,000 to 20,000 dead rats.

7300
CSO: 5400

VIETNAM

HO CHI MINH CITY COMBATS HEMORRHAGIC FEVER

Ho Chi Minh City TIN SANG in Vietnamese 5 Jul 78 pp 1, 7

/Article by H. Thu: "Municipal Hygiene and Epidemic Prevention Station Reiterates Most Effective Measures for Prevention, Control of Hemorrhagic Fever"/

/Text/ TS, 4 Jul--The Municipal Hygiene and Epidemic Prevention Station during July 1978 will initiate a campaign to chemically eradicate mosquitoes for the prevention and control of hemorrhagic fever in locations where pockets of contagion exist and where there are many young children.

Because the spraying of chemicals to kill mosquitoes has only an immediate and temporary effect, the number of mosquitoes is reduced only for a period of about 2 weeks following the spraying with the danger of contagion also reduced but after that, the mosquitoes will increase again if their life medium is not eliminated.

The Municipal Hygiene and Epidemic Prevention Station reminds the people that the most long lasting and decisive method is still that of general hygiene, destroying mosquito breeding locations like collecting and burning trash containing water such as cans, bottles, tires and nylon bags, draining the water from flat roofs and drain pipes, widely raising goldfish to kill mosquito larva and keeping a bright and clean house to prevent mosquitoes from entering or using folk methods such as burning incense, grapfruit peels, citronella leaves or rope to repel the mosquitoes. Moreover, a mosquito net should be used while sleeping and the children should not be allowed to play in dark and dusty locations.

According to estimates of the Municipal Hygiene and Epidemic Prevention Station, the disease could rise higher than during previous years during August and September due to the high density of mosquitoes and the high larva index. Nevertheless, if the people actively respond to the tasks of general hygiene and destroying the mosquitoes' life medium, the danger of hemorrhagic fever developing will be reduced as in the case of the 3rd Precinct, Phu Nhuan District and Ward 3 of the 8th Precinct.

Besides the methods of general hygiene, in coordination with ward and village public health personnel, the people must promptly discover and immediately treat the sick with severe cases immediately taken to the hospital.

Children from 1 to 15 years old easily contract hemorrhagic fever, most of all those from 3 to 5 years old. Only about 2 percent of adults contract the disease.

7300
CSO: 5400

BRIEFS

VACCINES DONATED--UNTZA [National Union of Workers of Zaire] has just received a shipment of 120,000 doses of anti-cholera vaccines, a gift from 15 million American labor union members to the workers of Zaire, according to an UNTZA communique which was turned over to AZAP [Zairian Press Agency]. These vaccines can be administered to more than 90,000 persons. [Excerpts] [Kinshasa ELIMA in French 9 Aug 78 pp 1, 7]

CSO: 5400

IMMUNIZATION CAMPAIGN; HEALTH REGULATIONS VIOLATIONS

Lusaka TIMES OF ZAMBIA in English 22 Aug 78 p 2

[Text] MUFULIRA council has launched a mass immunisation campaign aimed at controlling the spreading of infectious diseases among residents.

Since the campaign started two months ago, more than 1,000 people have been inoculated.

According to the latest council minutes, the health department had taken measures to control the spreading of diseases such as measles, smallpox and polio.

So far, 318 people had been inoculated against polio, 69 against measles and 157 against smallpox.

The department also reported good attendance at mobile clinics among the residents.

It was also reported in the council minutes that property owners on whom notices were served for contravening the public health regulations, had defied the notices.

Members of the health and social services committee recommended empowering health inspectors and the chairman of the committee to enter any premises.

It was also recommended that where necessary, appropriate steps be taken to close premises whose owners failed to comply with the notices.

CSO: 4420

TECHNICAL COLLEGE STUDENTS BELIEVED STRICKEN WITH MALARIA

Lusaka TIMES OF ZAMBIA in English 7 Aug 78 p 1

[Text]

NDOLA's Northern Technical College students have been gripped with fear following the outbreak of a disease believed to be malaria.

And many of them left the campus over the weekend for their parents' or relatives' homes to get money for treatment at private surgeries.

Vice-president of the Nortec Students Union, Mr Blackwell Siame, said yesterday the disease started last week when an entire class of second-year mechanical students fell sick.

The first to be attacked, Mr Siame said, was the president of the union, Mr Robby Namiluko, followed by 15 others. He said he too was not feeling well and suspected that he was suffering from a similar disease.

Mr Siame, who was surrounded by many other sick students at the campus, said on Friday all students were given anti-malaria pills in the diningroom.

"The number of patients increases everyday and we do not know what will happen if the disease is not controlled," he said.

Some students said they did not believe that the disease was malaria because after being given anti-malaria pills many more became sick on Saturday.

They called upon health authorities to inspect the dormitories and the diningroom frequently.

Chiwala school which had been plagued by malaria was closed down about ten days ago and would not open until further notice.

A serious outbreak of diarrhoea has been reported in Kaputa district in Luapula Province and so far 35 people have been treated at the local clinic.

CSO: 5400

'DRASTIC' MEASURES AGAINST SWINE FEVER PLANNED

Buenos Aires Domestic Service in Spanish 1030 GMT 1 Sep 78 PY

[Text] Drastic measures will be implemented to prevent the entry of African swine fever. A special commission was created for this purpose yesterday. This commission has 10 days to work on the creation of a quarantine area (area de aislamiento) on the border with Brazil, which has been striken by this disease.

A meeting on this subject at the Agriculture and Livestock Secretariat yesterday afternoon was presided over by Livestock Under Secretary Alberto Mihura and attended by representatives of national and provincial organizations responsible for this activity.

The meeting issued a communique announcing that the objective of the quarantine area is to complement already implemented control measures designed to prevent the entry of infected material which could find an appropriate host or carrier.

It was unanimously decided that should sick animals be discovered, all hogs at the establishment where the sick animals are found and also all those of establishments in the vicinity will be killed to prevent the spread of the disease.

Hog raisers, the Armed Forces and public organizations will cooperate in work related to disease detection and eradication.

Should killing of animals become necessary, producers will have to be paid for the loss as soon as possible, and this makes it necessary to have the necessary funds available. Therefore, the livestock under secretary has ordered the preparation of a budget to be submitted to the Finance Secretariat, which will provide the necessary funds.

Everyone present at the meeting promised to help as much as possible bearing in mind the severe consequences which African swine fever might have for the economy of the livestock sector.

The meeting was attended by representatives of the National Animal Health Service [SENASA], the National Institute of Agriculture Technology [INTA], the National Meat Board, the Foreign Trade Secretariat, the Finance Secretariat, and Buenos Aires, Misiones and Corrientes provinces.

CSO: 5400

BRIEFS

FOOT-AND-MOUTH DISEASE CONTROL--The British minister of overseas development, Mrs Judith Hart, who is currently in the country, has signed an agreement with the Botswana Government for British aid amounting to 2.5 million pounds. According to the BBC monitored here, the money is to be used for control of foot-and-mouth disease and is being made available in response to a United Nations report. [Excerpt] [Gaborone Domestic Service in English 0510 GMT 4 Aug 78 LD]

CSO: 5400

BRAZIL

PROBLEM OF AFRICAN SWINE FEVER DISCUSSED

Disease Confirmed in Rio Grande do Sul

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 17 Aug 78 p 35

[Excerpt] The first focus of African swine disease in Rio Grande do Sul was confirmed yesterday by the state secretariat of agriculture in the municipality of Tres Passos, 544 kilometers from Porto Alegre. Five animals have died of this disease, while another 35 were slaughtered to prevent its spread.

Since June, when the disease began to spread through several states, the government of the state of Rio Grande do Sul has established 23 checkpoints on the boundary between Santa Catarina and Argentina, and has prohibited the use of refuse in feeding hogs to protect the herd in Rio Grande do Sul, which is estimated at 3,200,000 head. However, the secretary himself, Getulio Marcantonio, has admitted that financial resources needed for more effective control are lacking.

The office of the ministry of agriculture in Recife has released a statement revealing the discovery of a focus of African swine fever in the municipality of Sao Lourenco da Mata.

The statement further says that his office has received from the Central Coordination Commission for the Eradication of Swine Fever "a telex message stating that the laboratory tests of samples collected from breeding hogs in the municipality of Sao Lourenco da Mata were positive."

In Brasilia, the deputy leader of the ARENA [National Renewal Alliance], Jarbas Passarinho, told the senate yesterday that a French institute has scientifically proved that it is not possible to transmit the disease via soybeans exported from Brazil. The senator, who talked at length about the problems resulting from the disease, defended the position of the minister of agriculture, noting that in announcing the existence of centers of the disease in the country on television, Paulinelli was not acting in hasty, thoughtless or irresponsible manner.

Disease Eradicated in Sao Paulo

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 18 Aug 78 p 27

[Excerpt] "African swine fever has been wiped out in the state of Sao Paulo," Fernando Marrey, president of the technical commission on swine breeding of the FAESP, during a meeting of producers held at the headquarters of that organization, said. He added further that the ministry of agriculture should not relax the preventive measures against the disease because "it could still reappear." Although the ministry of agriculture announced yesterday the confirmation of yet another focus of the disease in Ribeirao Preto and the focus in Campinas was confirmed on the first of this month, Marrey believes that the disease has now been eradicated because "for almost two months now no new center has appeared in the state."

Sources at the office of the ministry of agriculture in Sao Paulo have reported that the government began yesterday to make indemnity payments to the swine breeders in the municipality of Ourinhos and in Jardim Jaqueline, a neighborhood in the capital city, whose animals were slaughtered because of the disease.

Confirmation

Jose Alberto Lira, the national secretary for agricultural protection, provided official confirmation in Brasilia yesterday of the fact that African swine fever has been found in the municipality of Tres Passos, in the state of Rio Grande do Sul. He said that all the technical steps necessary to isolate the focal area have been taken, and that he believes that it will be possible to avoid the spread of the endemic disease outbreak. As to the focus in the municipality of Sao Lourenco da Mata, in the state of Pernambuco, which was reported by the regional office of the ministry of agriculture in Recife, Lira said that there is no proof as yet to confirm the suspicions.

Expert Diagnosis Recommended

Rio de Janeiro JORNAL DO BRASIL in Portuguese 17 Aug 78 p 19

[Text] The advisory commission of the CNPq [National Scientific and Technological Development Council] has suggested that diagnoses of African swine fever be made at the EMBRAPA laboratory at the Rural University of Rio de Janeiro in the future, so that the ministry of agriculture can fully take over the program of epidemiological surveyance with a view to eradicating the disease. Currently, the analyses are being made at the laboratory of the UFRJ [Federal University of Rio de Janeiro].

The commission justifies the transfer on the basis of the fact that the EMBRAPA has personnel specializing in animal pathology, the physical space, the technological support of other laboratories in the area, facilities for

receiving samples and dispatching results, and an institutional framework, and also the fact that it comes under the ministry of agriculture itself.

Survey

Before suggesting the use of the EMBRAPA laboratory, the members of the advisory commission of the CNPq visited the laboratory at the UFRJ (where the diagnoses are being done), the Naval Research Institute and the regional office of the Ministry of Agriculture in Campinas, state of Sao Paulo. They also met with U.S. experts W. R. Hesso and K. C. Sherman from the Plum Island Laboratories operated by the Department of Agriculture of the United States.

Taking the view that the work of eradicating the disease should extend over a number of months, that the number of samples to be analyzed is tending to increase, and that even after the elimination of the last focus of the disease diagnostic work should continue and that currently the laboratory diagnosis is being done by a body which does not come under the Ministry of Agriculture, the commission recommended that this body take over the implementation of this work, making use of its technical team and its installations.

It also suggested that the diagnostic work be concentrated in just one laboratory, which should be that at the 47 kilometer marker. In the view of the commission, the naval laboratory on Governor's Island is not suitable because of the lack of physical space available for the work. In relation to the Campinas laboratory, the commission concluded that the originally planned program for foot and mouth disease should be implemented, and that it should not be contemplated for other types of activity. The opinion stated that "in fact, the problem of foot and mouth disease is deemed to be as important to the national economy as the problem of African swine fever."

Measures Planned

The CNPq opinion made it clear that the steps suggested should culminate with the complete assumption of the laboratory diagnosis work by the Ministry of Agriculture, but that this will not involve any slowdown in the current activities being pursued at the department of virology of the UFRJ. The commission suggests that the ministry should make financial and human resources available to that department for expanding the work capacity of the laboratory. This is because the time required for the transfer of the testing work will be a minimum of ten months.

The report of the work group on laboratories and research, headed by scientist Raimundo Machado of the UFRJ, with Herman Schatzmayr, of the Osvaldo Cruz Institute, serving as reporter, which was submitted to the Ministry of Agriculture, also includes a series of recommendations,

following confirmation of the fact that the existence of African swine fever in Brazil "is a certainty, in view of the proof provided by laboratory diagnosis work of indisputable quality."

The work group recommended the use of African swine fever epidemiological serum with non-infectious reagents in regional laboratories, as well as the implementation of virological and ecological studies under controlled conditions, in laboratories approved in advance by the Ministry of Agriculture.

5157
CSO: 5400

BRAZIL

AFRICAN SWINE FEVER WIDELY REPORTED IN BRAZIL

Fever Confirmed in Parana

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 8 Aug 78 p 29

/Text/ The Ministry of Agriculture confirmed yesterday the existence of three more centers of African swine fever in Parana--Loanda (Northeast), Sertanopolis (North) and Cruzeiro do Este (North). The new centers increase the number of definite cases in the state to 18.

Roulien Basaglia, federal commissioner of the Ministry of Agriculture in Parana, explained that so far 2,500 animals were destroyed in the area of the centers and in nearby farms where there were suspicious cases. He defended the control measures which have been adopted and the inspection system set up to prevent the spread of the disease, saying that "it could not be better under the existing conditions and that they can be considered very good. All the organization available to the ministry and the department was mobilized."

Therefore, he added, "if the number of centers is increasing, it does not mean there is any defect in the inspection system." He emphasized that African swine fever is not spreading in Parana as intensely as expected: "So that you may have an idea, while Parana has a herd of 4.8 million head, so far we only have had to slaughter 2,500."

Yesterday in Curitiba, the Ministry of Agriculture signed an agreement with the Parana Rural Credit and Relief Association, connected with the Department of Agriculture, transferring 4.08 million cruzeiros in funds, so that this association may take charge of inspection at the barriers in the state. In Dois Vizinhos in the southeastern part of the state, Governor Jayme

Canet Junior said in talks with breeders that "African swine fever really exists, the disease is not an invention of the government or a maneuver of multinational companies to control prices, but a very serious fact."

Outbreaks Reported in Santa Catarina

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 9 Aug 78 p 26

/Text/ The Santa Catarina Department of Agriculture and Supply confirmed yesterday in Florianopolis the existence of three more centers of African swine fever in the state, recorded in the municipalities of Palmitos, Xanxere and Sao Lourenco do Oeste, all in the western region where 80 percent of the Santa Catarina hog herd (3,200,000 head) is concentrated. With these new centers, the cases of African swine fever in the state have reached 10, while more than 3,000 animals have been slaughtered so far.

On the other hand, the national secretary of Farming and Livestock Protection of the Ministry of Agriculture, Jose Alberto da Silva Lira, is arriving today in Florianopolis, where he will attend a meeting with the secretary of agriculture, Antonio Azambuja Loch, with the commissioner of the Ministry of Agriculture in Santa Catarina, Alberto dos Santos, in addition to experts from Coordination of Animal Health Protection, leaders of trade unions and cooperatives.

One of the main demands of the natives of Santa Catarina involves the creation of sanitary corridors (already in operation) which did not satisfy the hog raisers. For them the solution of the problem of surplus stock will only be relieved with the opening of the inspection stations for Rio Grande do Sul. Meanwhile in spite of appeals made to the governor of Rio Grande do Sul, Synval Guazzelli, the breeders are rather pessimistic, considering that the disease was confirmed in the municipalities of Palmitos, Xanxere and Sao Lourenco de Oeste, near Rio Grande do Sul border.

Parana

The Parana Association of Hog Raisers charged yesterday in Curitiba that the cold storage plants are continuing to profit from the prevalence of swine fever in the state, to reduce the prices paid for live hogs. While 13 to 14 cruzeiros per kilo were paid before the outbreak of the disease, prices now are at a maximum of 9 to 11 cruzeiros.

Andre Pandolfo, secretary of the association, says that, in spite of this, prices for the consumer continue high and this hampers any campaign attempted to boost consumption. "The best encouragement would be just to reduce the price, which is natural in the law of supply and demand, since the demand dropped considerably. Besides, the price of beef is high and consequently it would be the best time to promote the consumption of pork."

The expert emphasized that the opening of "sanitary corridors" for Sao Paulo, financing of storage in freezing plants and purchase by COBAL /Brazilian Foods Company/ had already succeeded in minimizing the problem, although prices are still considerably below previous levels.

Ourinhos

Hog raisers in Ourinhos are appearing at the local agricultural office to sign the applications sent by the Ministry of Agriculture to receive compensation for the slaughter of their herds, because of the African swine fever center discovered in the municipality.

The secretary, Paulo da Rocha Camargo told the mayor of Ourinhos during a meeting they held at the Department of Agriculture, that the compensation money is already available and that they still had not made payments, merely because of bureaucratic problems.

Outbreaks Nationwide Total 89 as of 1 August

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 3 Aug 78 p 33

/Text/ The national secretary of Farming and Livestock Protection, Jose Alberto Lira said yesterday in Brasilia that by 1 August, 16 more centers of African swine fever were confirmed in the states of Parana, Santa Catarina, Sao Paulo, Espirito Santo, Minas, Goias, Piaui and Para, with the number of existing centers in the entire country increasing to 89.

The new centers appeared in the municipalities of Ibaite, Cambara, Vere and Curitiba in Parana, Sao Lourenco in Santa Catarina; Irapuru and Piauzinho in Sao Paulo; Guarapari in Espirito Santo; Congonhas do Campo and Belo Horizonte in Minas; Itumbiara, Hidrolandia and Bela Vista in Goias; Barras in Piaui and two

more in Cachocira do Arari in Para. There are still 143 suspected centers in the country. According to the SDNA /National Department of Farming and Livestock Protection/, 16,173 hogs have been slaughtered so far because of the fever.

Regarding the document drawn up by rural trade union and cooperative leaders in the eastern region of Santa Catarina, expressing their doubt and disbelief about the existence of swine fever in Brazil, which will be sent to governmental authorities, including President Ernesto Geisel, Alberto Lira only regretted this type of expression, "which is one of the greatest disservices to the work of eradicating the fever which the SDNA is carrying out." He said that the department cannot prevent these expressions of disbelief by rural leaders, but he is ready to prove scientifically the existence of African fever, which is now in the epidemic stage.

He assured that the measures which are being adopted to combat the centers of the fever have proved to be "extremely effective," even influencing the consumption of pork. He pointed out as the most important means to prevent the spread of epidemic centers immediate reporting by farmers of isolated or even suspected cases of the disease. He emphasized that the neutralization of various centers is continuing. Meanwhile, he said that he still does not have information about the funds which the government spent combating African swine fever, including compensating the owners of slaughtered animals, which will begin today in Parana.

8490
CSO: 5400

BRIEFS

HOGS KILLED IN MARANHAO--Approximately 550 hogs already have been killed in the municipality of Chapadinha, Maranhao State, in view of the African swine fever detected here a week ago. Sanitary officials have predicted that at least 1,500 animals will have to be sacrificed to avoid the spreading of the disease to other regions of the state. [Sao Paulo Cadeia Verde Amarela in Portuguese 1000 GMT 30 Aug 78 PY]

AFRICAN SWINE FEVER--Belo Horizonte--the Agriculture Ministry has confirmed the existence of 12 focuses of African swine fever in Minas Gerais State but denied reports of an outbreak in Ponte Nova. An outbreak of the disease was also confirmed in Cascavel, Ceara State, and it is suspected that the disease has reached Tiangua and Fortaleza. [Porto Alegre Radio Guiaba in Portuguese 2150 GMT 28 Aug 78 PY]

CSO: 5400

BRIEFS

FOOT-AND-MOUTH DISEASE--A special veterinary team toured 28 village tracts in Tharawaddy township 3-9 August and treated 3,880 draft cattle infected with foot-and-mouth disease and 422 animals infected with other diseases. [Rangoon Domestic Service in Burmese 0630 GMT 22 Aug 78 BK]

CSO: 5400

CANADA

ANTHRAX EPIDEMIC AMONG BISON IN ALBERTA REPORTED

Montreal LA PRESSE in French 7 Aug 78 p B8

/Text/ Edmonton. One or two bison are dying every day from the anthrax epidemic raging in the herds near the border between Alberta and the Northwest Territories.

Bruce Stephenson, head of the wildlife service, expects that this mortality rate will continue through August.

Of the 6,800 bison living in an area of 84,760 square kilometers, several have died so far. The victims are divided equally within and without the Wood Buffalo National Park, most of which is in Alberta.

During an interview Friday, Mr Stephenson explained that at the rate at which this bacterial disease spreads, between now and the start of autumn 10 percent of the 80 bison living outside the park may die.

To prevent this infectious disease from spreading to domestic cattle, a large area along the east bank of the Slave River in the Northwest Territories has been closed to visitors.

7679
CSO: 5400

BRIEFS

VACCINATIONS IN GOJJAM--Dr. Hailu Gebru, the head of the Regional Animal Health Service Section, disclosed that, treatment and preventive vaccinations of various types have been given to 1,190,095 different animals in the seven provinces of Gojjam administrative region. Dr. Hailu further disclosed that, more than 210 peasants have at different times been given education on animal treatment to stand the shortage of trained personnel, and to put into practice the principle of "self-reliance." Moreover, agitations have been carried on among the peasants on how the health of the animals of the administrative region could be upgraded. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 20 Aug 78 p 3]

CSO: 5400

BRIEFS

CATTLE DISEASE--The East Java governor has said that East Java Province is now free from bovine foot-and-mouth disease following an intensive campaign against the disease. The number of cattle in the province has increased every year for the past 5 years. [Jakarta Domestic Service in Indonesian 0700 GMT 24 Aug 78 BK]

CSO: 5400

CATTLE VACCINATION IN NAMPULA

Maputo NOTICIAS in Portuguese 7 Jul 78 p 2

[Text] Nampula, 6 Aug--According to information from the provincial head of stockraising, about 90 percent of the 46,000 head of livestock in Nampula has been included in the vaccination campaign that began throughout the province last April and ended just recently.

The same official added that another campaign covering cattle only will be carried out this August and September. In another connection, it is known that the process of constructing buildings for ducks and rabbits has now been completed in a number of this province's organized living centers. Those units are awaiting only the start of the national campaign for raising small animals, which will begin this coming 25 September.

In the poultry-raising sector, a station with 700 breeders is operating in the Nampula District, and this has made it possible to provide the provincial capital with a regular supply of chicken and eggs.

Discussing the inadequate supply of meat that has recently been occurring in the province, the stockraising official for Nampula explained that the situation is due not only to the current shortage of beef cattle but also to the flooding of the Zambezi River, which caused the death or disappearance of many head of cattle. He also announced that a meeting will soon be held in Zambezia Province to reorganize the cattle marketing system. It will include the stockraising sectors in the northern part of the country.

11798
CSO: 5400

BRIEFS

RARE CATARRHAL FEVER--Okahandja--A suspected case of malignant catarrhal fever has been reported on the farm Okatmatangara, where three beasts have died and one is still sick. This disease is rare and is carried by Gnu. [Text] [Windhoek THE WINDHOEK ADVERTISER in English 21 Aug 78 p 2]

CSO: 5400

BRIEFS

NEWCASTLE'S DISEASE--In view of the appearance of Newcastle's disease in Chiriqui province which is wreaking havoc among hens and roosters, Veraguas officials are taking appropriate measures to prevent the disease from spreading. The source added that the disease has not been spotted in Veraguas since fowl there are vaccinated regularly. [Panama City Televisora Nacional in Spanish 2315 GMT 10 Aug 78 PA]

CSO: 5400

BRIEFS

SWINE FEVER CONTROL MEASURES--Lima, 12 Aug (LATIN)--Peruvian health authorities have taken measures to prevent the entrance of African swine fever into the country. They include preventive measures along the border with Brazil and the inspection of airplanes carrying pork products. The refuse from airplanes will be incinerated to prevent the entry of the virus. [Buenos Aires LATIN in Spanish 1948 GMT 12 Aug 78 PA]

CSO: 5400

BRIEFS

MEASURES AGAINST SWINE FEVER--Caracas, 9 Aug (VENPRES)--Agriculture and Livestock Minister Gustavo Pinto Cohen has reported that the Venezuelan Government is taking the necessary measures to prevent the entrance of swine fever into the country. He said that all pork products that passengers bring from abroad will be confiscated at airports and seaports. [Caracas Diplomatic Information Service in Spanish 0625 GMT 10 Aug 78 PA]

CSO: 5400

BRIEFS

EAST AFRICAN LOCUST REPORT--Kenya, Tanzania and Uganda remained clear of desert locusts during the first 10 days of this month, according to a report by the Desert Locust Control Organisation for Eastern Africa. Three unconfirmed reports of swarms in Somalia's Yafira Pass, Ubb Village and south Bosasso were received, it said. Swarms in Ethiopia were reported at Mota in Gojjam, Ashemando, Feleghe, Guelelo Wein, Bashilo, Akeleguzai and Cecamere areas of Eritrea. Hoppers were reported at Wadla Dalanta and Teleyane in Ethiopia's Wollo Province. A swarm was also seen at Saganaiti. [Text] [Nairobi DAILY NATION in English 24 Aug 78 p 8]

CSO: 5400

BRIEFS

INVADED BY LOCUST SWARM--Ndjamena, 18 Aug (AFP)--A swarm of locusts has destroyed 15,000 hectares of crops in northern Chad, according to an announcement made today by the joint anti-locust organization. The density of the swarm was between 20,000 and 100,000 locusts per hectare, of which 1,000 to 1,500 were migratory. The swarm destroyed 15,000 hectares of millet, and the organization has begun cleanup operations. [Text] [Paris AFP in Spanish 2133 GMT 18 Aug 78 PA]

CSO: 5400

LOCUST SPREAD IN AFRICA, EGYPT DESCRIBED

Cairo ROSE AL-YUSUF in Arabic 10 Jul 78 pp 51-53

[Article by 'Izzah Nasr: "The Greedy Thief in the African Sky: Will It Come to Egypt?"]

[Text] It is described as the "greedy thief" because of its extremely voracious and ravenous appetite. One swarm can include approximately 40 billion locusts. Only 500,000 of them weigh a ton, and can eat the amount of food consumed by 250 people in one day. That is, a swarm of locusts can consume in one day the amount consumed by 20 million people. That is why famines occur in the countries through which they pass.

The Greedy Thief in Africa

The locust can rival the speed of ones automobile if driving in it in some of the streets of the capital which are jammed up by heavy traffic. The locusts can also travel 100 km daily at a speed varying between 10 and 20 miles per hour.

This dangerous insect, which attacks crops and devours them in a very short time, has returned to threaten Africa again since its last swarms left in 1962.

The FAO is warning about the probability of their spreading in many areas of the Black Continent. It has even announced the presence of swarms in east Africa after approximately 50 swarms attacked Kenya recently. Then the news rang out about the probability of their migrating to Egypt also during the period from June to next September, which is the period of their migration.

According to officials of the Ministry of Agriculture, a serious report arrived from the Center to Combat Locusts in Saudi Arabia at the end of last month, which indicated the presence of 25 swarms of locusts, covering an area of approximately 20 square km, which is equivalent to 5,000 feddans.

The most dangerous thing about this insect is that it has no fixed place in which it spreads. It migrates to any place where there are ample conditions suitable for its life. Swarms of locusts once attacked the Maghrib despite the fact that it was not one of their breeding grounds. At that time the Maghrib lost 15 million dollars.

Therefore the nations of the world, with the support of the United Nations, are cooperating to combat this dangerous insect, which is also the single plague combatted by the governments.

There are numerous varieties of locusts, among them yellow and red. The most dangerous variety is the migrating African locust which is known as the desert locust. This is the one to which our country is exposed. Its propagation regions are concentrated from the Atlantic Ocean in the west to south China in the east, and from southern Europe in the north to the equator in the south. It threatens approximately 63 nations.

Locusts are usually found in mountainous or desert regions, grazing areas where the rain falls, or agricultural regions.

11 Million Square Miles

Studies report that swarms of locusts are now raiding an area of approximately 11 million square miles. They turn up at different times of the year, and this area represents 25 percent of the surface of the earth.

This means that the locusts have an effect upon approximately a quarter of the inhabitants of the world.

Dr Hamdi Hasr, a specialists in biological research in Saudi Arabia, said that one of the important phenomena is the locusts' extraordinary ability to fly for long periods without stopping, inasmuch as they can fly continuously for a period of 20 hours, at a speed of between 10 and 20 miles per hour.

Most of the swarms can travel more than 100 km daily. In a square mile of a swarm of locusts there are between 100 million and 2 billion locusts.

The number of locusts in a single swarm can reach 40 billion. Five hundred thousand locusts weigh one ton and can eat a quantity of food equivalent to what 250 people eat in a day. This means that a single swarm can devour a quantity of food equivalent to what 20 million people eat in a day. A single locust can eat its weigh, 2 grams.

He added that in view of the world's need for food security the locust represents a world-wide danger, and the nations of the entire world have a share in combatting them.

The world has not been attacked by locusts for approximately 16 years. Why have they again returned?

Engineer Mamduh 'Abd-al-Hamid of the Ministry of Agriculture said: During the last few years the peace situation has been unstable in eastern Africa, which is the locusts' breeding grounds, particularly in Ethiopia, Somalia, and Zaire.

Because of the continuous warfare there activities [aimed at] combatting the locusts and searching out their breeding grounds have not been given sufficient interest. The same thing also happened in Egypt after the sites for combatting them were destroyed in Ismailia and Suez after the recent wars. Therefore the locusts have begun to multiply and reappear during the past years, and have transformed into collective swarms on the coasts of the Red Sea, east Africa and the kingdom of Saudi Arabia.

It is expected that swarms of locusts will appear in their propagation areas in North Africa, India and Pakistan in 3 months.

The Situation in Egypt

Engineer Muhammad Luhaytah, chief researcher in the institute, said:

"Protecting plants: The quantities of locusts that have appeared in Egypt so far have been concentrated in the northern desert, because of the weather and conditions which are favorable to their form of life, and specifically at Lake Nasir and in the al-'Ilaqi region. They have also appeared in a narrow area in the eastern desert in the district of al-Wadi al-Jadid. But it has been possible to wipe them out."

But engineer Muhammad al-Jadawi, director of the locust office in the Ministry of Agriculture, said: "The latest locust search activities forecast the probability that Egypt is subject to being raided by them, particularly after the attack of the swarms of locusts against Saudi Arabia and north Yemen at the end of last month, and after 50 swarms attacked Kenya last week."

It is the opinion of the researchers that the danger of the locusts lurks in their forming swarms that vary in size from 2 to 3 square km. Sometimes the bulk of these swarms covers approximately 150 square km.

If a swarm of locusts settles down on a farming region, it can completely strip it of its vegetation. A swarm once descended on 500 cultivated feddans which it destroyed to the last in a quarter of an hour.

Engineer al-Jadawi added: "The danger of the locusts also lurks in the fact that it is an insect that is not specialized in devouring specific crops, but devours all crops equally. If they do not find green leaves, they devour the dry stalks, without anyone being able to stop them. Therefore they are called 'the greedy thief.'"

Engineer al-Jadawi warned about the periods of quiescence when the insect lives individually--which may last 10 years--after which it is transformed from the individual into collective swarms. During the period of quiescence efforts to combat locusts are frequently lacking because it is a period of safety, but the number of locusts increases alarmingly.

Studies have established that the rate of increase in the number of individual locusts after one generation of the swarm frequently increases [the swarm] to 36 times the number of the first generation. This is because in every square foot there are 100 egg sacs, in each of which there are 70-80 eggs. This makes it imperative to combat the locusts during the period of quiescence especially when these periods are long and the locusts are delayed in forming the swarms.

Rain and the Increase in Locusts

The locusts' most important natural enemy is an unsuitable climate and rainfall. Locusts usually live in the desert and semi-desert regions that are marked by low and irregular rainfall. The average rainfall in their propagation areas ranges from 50 to 200 mm annually. To a great extent reproduction is also linked to the presence of rain.

Fungi and bacteria are considered among the locusts' worst enemies. If they are present in their breeding grounds they can completely wipe out the swarm there. The temperature also has an effect on their propagation. An increase in the temperature encourages their reproduction and speeds up the process of metamorphosis and their migration from their breeding grounds to other areas which they strip of vegetation.

Although it is very difficult to discover the locusts' breeding grounds and stop them, scientific research has helped a great deal in predicting their locations.

Dr Hamdi Nasr said: "To determine the locations of the locusts the specialists resort to computing the speed of flight of the swarms, which is usually less than the speed of the wind, because the groups of locusts in the swarm do not fly all the time. During their flight they come to places for grouping together in the air which are more exposed to rainfall."

It has also been found that locusts are carried from regions of high atmospheric pressure to low-pressure areas. After determining these regions with the help of meteorological observation, the locusts can then be contained where they are located with the support of the nearby combat centers.

Engineer Mamduh 'Abd-al-Hamid added that locusts usually gather into groups at sunset over the grasses and shrubs. When these grouping sites are discovered the regions where the locusts will be can be determined.

The Exchange of Information Among Nations

But how are the locusts battled after they are contained? What are the preparation that are taken to confront them before they spread?

Engineer Muhammad al-Jadawi said: "Because of the extensive damage that locusts cause to crops, the governments have begun to cooperate, under the supervision of FAO, in combatting them and exchanging expertise and information about the places they are located and where they are likely to migrate so that the nations can be on their guard and take precautionary measures."

The United Nations also holds training courses for researchers to upgrade and develop their level of expertise.

Engineer al-Jadawi said that combatting locusts used to be done in a very primitive way because [the people] resorted to conscripting school students to beat metal sheets to frighten the locusts and prevent them from stopping at the crops.

But scientific research has demonstrated the lack of seriousness and ineffectiveness of this method. New methods have been invented, using various kinds of insecticides such as (chloror) of benzine, dieldrin and organic phosphor. Methods of spraying with airplanes have been used in case the locusts attack.

In spite of the fact that locusts constitute an overwhelming danger to man's food security, nevertheless some people--such as those in Mexico, Saudi Arabia and India--derive nourishment from them, because there is protein in the egg sacs which the females deposit, and also in the ovary of the female locust.

These people usually resort to hunting the locusts at sunset, then packing them in canvas sacks and they eat them salted or boiled.

Islam permits the eating of locusts. Shaykh al-Baquri says that God has permitted us to eat locusts. The evidence of this is in a tradition of the Prophet in which he said: "The meat of two animals not slaughtered in accordance with Islamic ritual requirements is permitted: fish and locusts."

9123
CSO: 5400

BRIEFS

ANTI-LOCUST EFFORTS--DESSIE--An agitation group of 40 left Korem last Wednesday to organize peasants and give instructions on the application of chemicals to eradicate locust swarms that started breeding in some desert areas and the use of insecticides in Wofla district, Wag province of Wollo administrative region. The group comprised of participants from government organizations, men-in-uniform and teachers in Korem that had undergone political orientation a week-long training on the application of the chemicals. The training programme was given to the employees of the Agriculture and Settlement office in the district and cadres from the Provisional Office for Mass Organizational Affairs. The campaigners are to give lessons to the peasants on how to take first hand measures to fight the insects and locust swarms. It was also learned that the campaigners were out for 20 days as volunteers to serve the masses. The Relief and Rehabilitation Commission is assisting the campaigners and coordinating their activities. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 20 Aug 78 p 3]

LOCUSTS IN TIGRAI WIPED OUT--Desert locust swarms which had hatched on eleven acres of land in two kebeles of Waareb district of Enderta province, Tigrai region, were completely wiped out last week, it was disclosed yesterday. The locust swarm which posed a serious danger has been eradicated by the joint effort of members of the peasants' associations and government employees coordinated by a committee especially set up for locust eradication in the district. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 20 Aug 78 p 6]

CSO: 5400

SPREAD OF RAIN-CAUSED PLANT DISEASES NOTED

Budapest MAGYAR MEZOGAZDASAG in Hungarian 2 Aug 78 p 26

[Excerpts] Frequent rainfall throughout the country has created conditions favorable to the onset of Phytophtora in potatoes. The blight has spread more rapidly to later maturing types of potatoes since 20 July. Leaf infection is most severe in Bekes and Csongrad counties where 40 percent of the leaves have been affected. There are also dangerous foci in the southwestern parts of Somogy and Gyor counties where the percentage of infected leaves ranges from 20 to 40 percent. Infection as great as 30 percent has been noted in Nograd County, too.

The epidemic of Phytophtora is also threatening the tomatoes. Since it attacked potatoes early in the season, it can be expected to spread to tomatoes earlier than in the past 2 years. The first symptoms have appeared in the southeastern parts of the Transtisza regions, the southern half of Transdanubia and the northwestern parts of the country. A fill scale epidemic could develop in these regions in the coming weeks. Symptoms of leaf septoria also made an early appearance in the tomato fields throughout the country in the first half of July. Symptoms of the tomato disease, alternaria, are already appearing not only on leaves but on the fruit itself in Transdanubia, the Great Plain Region and the eastern parts of Borsod County. At present this disease is spreading slowly.

There has been a gradual accumulation of pests which damage seed of the flowering alfalfa. According to latest reports, the alfalfa bud gall midge infestation is considerable throughout the country. The pest is present in all flowering alfalfa fields. In most of the Transtisza Region, in southern Transdanubia, Pest, Heves and Borsod counties the percentage of infested buds is as high as 10-20 percent. In fact, it is sometimes as high as 20-40 and even 40-70 percent. Increasing numbers of aphids are due to appear on the alfalfa in the near future. The infestation has approached and even exceeded the extent at which serious damage can be expected in certain parts of the country.

CSO: 5400

POLISH EXPERTS TO AIR SPRAY AGAINST PESTS

Kaduna NEW NIGERIAN in English 14 Aug 78 p 1

[Article by Abdullahi Idris]

[Text]

A MASSIVE aerial spraying operation has been launched in Borno State by a team of Polish experts to eliminate quelea birds, grashoppers, locusts and other voracious pests that have been ravaging farmlands.

The Polish experts are in the country on the invitation of the Federal Military Government.

The Polish experts from the Polish Foreign Trade enterprise, PEZETEL, are expected to concentrate their operation in Ngala, Nguru, Kukawa, Monguno and Damaturu Local Government areas. These are the areas where the ravages of the pests have been most severe in Borno State.

The equipment involved in the operation include a lorry for the transportation of aviation fuel, agricultural equipment and a delivery van that serves as a small cargo unit for the personnel.

The massive operation which has already started is expected to end in the middle of October, this year.

In a statement, the Federal Department of Agriculture, Field Office/Pest Control Unit in Maiduguri, appealed to the members of the public in these areas not to panic during the spraying exercise.

The menace of the pests has been on the increase since the departure of the German experts who formed the backbone of the Plant Protection Unit of the Federal Department of Agriculture in Maiduguri. The Germans were sent to Nigeria as part of a technical aid programme by the Federal Republic of Germany. The German Government also provided the chemicals and equipment necessary to check the menace of the pests.

The German experts once claimed in a report before their departure that they have destroyed about 40 million quelea birds. It is estimated that the quelea birds could destroy about 220 tonnes of grains in a day.

After their departure early last month, farmers in the state became alarmed at the prospect of going through the season with the pests left unchecked. As a result, many of the farmers from various parts of the state appealed to the government to come to their aid because of the imminent invasion of their farms by the quelea birds and other pests. Some farmers were said to have warned the government that they were on the brink of starvation as a result of the invasion.

CSO: 5400

BRIEFS

LOCUST SWARMS--Rahimyar Khan, Aug 19--Five more locust swarms crossed the Pakistani border and entered into Cholistan area yesterday. This was stated by the Deputy Commissioner Nazir Ahmed here this morning, he clarified that although vast area in the desert was in the grip of 12 thickly populated swarms yet contrary to a report published in a section of the press cultivated area was still safe and no damage had been done to standing crops. [Text] [Peshawar KHYBER MAIL in English 20 Aug 78 p 1]

LOCUST CONTROL--Karachi, Aug 17--Both ground and aerial operation are underway to control the influx of 31 swarms of locusts of varying sizes into Tharparkar, Khipro, Nara and Cholistan areas of Pakistan from the Indian bordering areas of Jaisalmeer and Bikaner. A spokesman of the Plant Protection Department told the APP here today that Tharparkar and Khipro areas in Sind were attacked with locusts and cleared last month. But it was a fresh attack in Nara and Cholistan areas. The spokesman said that so far the department had been able to destroy 34 swarms of locusts. He however said that egg laying had already been reported in the affected areas. Fresh egg laying was also expected next week. [Text] [Peshawar KHYBER MAIL in English 18 Aug 78 p 6]

CSO: 5400

BRIEFS

SHANGHAI PEST CONTROL--A campaign has been launched on Shanghai's outskirts to combat insect pests and drought in an effort to win good harvests of grain and cotton. Since 25 June there has been a lack of rain and more insects have appeared in the fields. To insure bumper harvests of grain and cotton, the Shanghai Municipal Agricultural Office and the municipal Agricultural Bureau issued an emergency circular on 4 July calling for earnest efforts to control insect pests and to cope with the current dry spell. [Shanghai City Service in Mandarin 0000 GMT 6 Jul 78 OW]

CSO: 5400

BRIEFS

CLOVE TREE DISEASE--Zanzibar has announced drastic cuts in its imports in a bid to remain solvent following the killing by disease of some 40 percent of its clove trees. Zanzibar is the world's largest clove exporter and the crop has until now provided the island and its sister island, Pemba with most of their foreign earnings. [Excerpt] [Johannesburg THE STAR in English 23 Aug 78 p 20]

CSO: 5400

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