JPRS 71555

26 July 1978

# WORLD EPIDEMIOLOGY REVIEW No. 98

WORLD

WIDE

77

Reproduced From Best Available Copy

DISTRIBUTION STATEMENT A Approved for Public Release Distribution Unlimited

U. S. JOINT PUBLICATIONS RESEARCH SERVICE

REPRODUCED BY NATIONAL TECHNICAL INFORMATION SERVICE U.S. DEPARTMENT OF COMMERCE SPRINGFIELD, VA. 22161

# JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22151. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in <u>Government Reports</u> <u>Announcements</u> issued semi-monthly by the National Technical Information Service, and are listed in the <u>Monthly Catalog of</u> <u>U.S. Government Publications</u> issued by the <u>Superintendent of</u> Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available through Bell & Howell, Old Mansfield Road, Wooster, Ohio, 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

#### NOTE

JPRS 71555

26 July 1978

WORLD EPIDEMIOLOGY REVIEW No. 98

BIBLIOGRAPHIC DATA	1. Report No. JPRS 71555	2.	3. Recipient'	Accession No.
SHEET . Title and Subtitle	<b>JPRS</b> 71555		5. Report Da	
	DGY REVIEW, No. 98			ly 1978
WORLD EFIDEMIOL	JGI REVIEW, NO. JO		6.	<u>-</u>
. Author(s)			8. Performing No.	Organization Rept.
Performing Organization	Nome and Address			Task/Work Unit No.
Joint Publicatio	ns Research Service			
1000 North Glebe			11. Contract	Grant No.
Arlington, Virgi	nia 22201			
2. Sponsoring Organization	n Name and Address		13. Type of Covered	Report & Period
As above		·		
			14.	
5. Supplementary Notes			<b>I</b>	
6. Abatracta				
	ains worldwide press and			
	ts of human, animal, and	-		and control
Sanicación cond.	itions, immunization and	public hearth j	programs.	
			/	
			/	
			•	
			•	
7. Key Words and Docume	nt Analysis. 170. Descriptors		•	
Worldwide	•		•	
Worldwide Clinical Medicin	ne		•	
Worldwide Clinical Medicin Environmental B	ne iology	<u></u>	•	
Worldwide Clinical Medicin Environmental B Hygiene and San	ne iology		•	
Worldwide Clinical Medicin Environmental B	ne iology		•	
Worldwide Clinical Medicin Environmental B Hygiene and San	ne iology		•	
Worldwide Clinical Medicin Environmental B Hygiene and San	ne iology		•	
Worldwide Clinical Medicin Environmental B Hygiene and San	ne iology		•	
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation		, , , , , ,	
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation		,	
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation		,	
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation		, , , , , , , , , , , , , , , , , , ,	
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation			
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation			
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology	ne iology itation			
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology 7b. Identifiers/Open-Ender 7c. COSATI Field/Group 6. Availability Statement	ne iology itation d Terms 2E, 6E, 6F, 6I, 6M	19. Sec	urity Class (This	21. No. of Pages
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology 76. Identifiers/Open-Ender 76. COSATI Field/Group 8. Availability Statement Unlimited Availa	ne iology itation d Terms 2E, 6E, 6F, 6I, 6M	Rep	ort)	17
Worldwide Clinical Medicin Environmental B Hygiene and San Microbiology 17b. Identifiers/Open-Ender 17e. COSATI Field/Group 18. Availability Statement	ne iology itation d Terms 2E, 6E, 6F, 6I, 6M billity	Rep 20. Sec	ort)	1 A

## JPRS 71555

26 July 1978

PAGE

1

2

2

3

5

5

6

7

# WORLD EPIDEMIOLOGY REVIEW

No. 98

# Contents

HUMAN DISEASES

#### ARGENTINA

Briefs

Chagas-Mazza Disease

# BRAZIL

Briefs

Outbreak of Leishmaniasis Reported Measles Outbreak

COLOMBIA

Bolivar Epidemic Found Not To Be Typhoid (EL TIEMPO, 28 Jun 78).....

# DENMARK

Briefs

Hepatitis Outbreak Syphilis Spreads in Greenland

## DJIBOUTI

Briefs

Activities of Health Ministry

# GHANA

Mass Immunization Campaign in Northern Region (Solomon Addayini; GHANAIAN TIMES, 4 Jul 78).....

## [III - INT - 134]

- a -

## Page

# 

Anticholera Measur	es Generally	Effective,	Some	Exceptions	
				• • • • • • • • • • • • • • •	11

## LAOS

INDIA

Briefs	
Louang Nam Tha Inoculations	12
Vientiane Health Work	12
Savannakhet Health Work	12
MALAYSIA	

	eatment Emphas				
(NEW S	STRAITS TIMES,	24 May 78)	)	• • • • • • • • • • • • • • • • • • •	13

## NIGERIA

Tı	rypanosomiasi	s Institute I	ssues Urgen	it Fu	nds Appeal	
	(Ibrahiı	n Madaki; NEW	NIGERIAN,	28 J	un 78)	14
PEOPLE'S	REPUBLIC OF	CHINA				

Tsinghai To Raise Training Level of Barefoot Doctors	
(NCNA, 16 Jul 78)	15
Shensi Committee Holds Meeting on Public Health Movement	
(Shensi Provincial Service, 14 Jul 78)	16

CONTENTS (Continued)	Page
Briefs Heilungkiang Health Inspection New Antimalarian Drug	18 18
SEYCHELLES	
Briefs Emergency Cholera Vaccinations Ended	19
URUGUAY	
Colonia Begins Indoctrination To Combat Hydaridosis (Fredys A. Cabrera; EL DIA, 19-20 Jun 78)	20
Briefs Health Center Vaccination Drive	22
VIETNAM	
Venereal Disease in Vietnam (Editorial Report)	23
ANIMAL DISEASES	
BOTSWANA	
Role of Mission to EEC Detailed (DAILY NEWS, 28 Jun 78)	24
Vet Fence Constructed Along Rhodesian Border (DAILY NEWS, 27 Jun 78)	25
Establishment of Foot-and-Mouth Vaccine Lab Planned (DAILY NEWS, 26 Jun 78)	26
BRAZIL	
Reports on African Swine Fever in Various States (Various sources, various dates)	27
Outbreaks in Santa Catarina, Goias More Corn Imports Required Parana Hog Slaughter Delayed Two More Sao Paulo Focuses	

– c –

•

	Angolan Fishing Boats Blamed Rio Claimed Hardest Hit	
	Government Confirms 13 Focuses of African Swine Fever (Various sources, various dates)	34
	Minas Confined Herd Infected Argentina Intensifies Control Measures Disease Changes 1978 Inflation Rate Disease Infects Parana Hogs Details on Parana Outbreak Vale do Paraiba Swine Slaughtered Hog Cholera in Para Santa Catarina Test Results Awaited Disease Denied in Alagoas	
• .•	New African Swine Fever Cases Reported Daily (O GLOBO, 29 Jun, 1 Jul 78)	44
	28 June Confirmations 30 June Confirmations	
	Total of Swine Fever Focuses in Parana Reaches Eight (Cadeia Verde Amarela, 20 Jul 78)	45
	Briefs	
	Eight Swine Fever Outbreaks New Swine Fever Outbreaks Hogs Slaughtered African Swine Fever Focuses New Swine Fever Cases	46 46 46 46 46
COLOMB	IA	
	Government Issues Alert on African Swine Fever (EL SIGLO, 17 Jun 78)	48
DOMINI	CAN REPUBLIC	
	Steps Taken To Counter African Swine Fever (LATIN, 13 Jul 78)	50
	Briefs	
	Swine Fever Outbreak	51

- d -

# LAOS

	Briefs	Champassak Vet Work Vet Work in Various Locations Sayaboury Vet Work Meuang Champon Vet Work Oudomsai Vet Work Luang Prabang Vet Work	52 52 52 53 53 53			
PANAMA						
	Briefs	Prevention of African Swine Fever	54			
PARAGU	AY					
	Steps '	Taken To Halt Spread of Swine Fever (ABC COLOR, 30 Jun, 1 Jul 78)	55			
		Border Town Measures Encarnacion Slaughter Edict				
	Briefs	Measures Against Swine Fever Swine Fever Control	56 56			
URUGUA	Y					
	Briefs	Imports of Uncertified Pork Banned	57			
VENEZU	ELA					
	Briefs	Spread of African Swine Fever	58			
		PLANT DISEASES AND INSECT PESTS				
INTER-AMERICAN AFFAIRS						
	Briefs					
			E0			

Banana Plague

– e –

Page

59

GHANA

# Strange Insects Destroyed Crops (DAILY GRAPHIC, 17 Jun 78)..... 60 INDIA Locust Control Steps in Rajasthan (THE HINDU, 29 Jun 78)..... 61 Briefs Locust Threat in Gujarat 62 KENYA Locust Control Measures (DAILY NATION, 3 Jul 78)..... 63 Desert Locust Lookout Established (DAILY NATION, 7 Jul 78)..... 64 PEOPLE'S REPUBLIC OF CHINA Briefs Inner Mongolia Farm Pest 65 Inner Mongolia Pest Control 65 USSR Briefs Colorado Beetle in Lithuania 66 VIETNAM Nam Ninh District Transplants Rice, Fights Rice Disease (Duc Hniem; NHAN DAN, 16 May 78)..... 67 Briefs Ben Tre Insect Control 68 68 Brown Fly Eradication Provinces Kill Flies 68

- f -

## ARGENTINA

## BRIEFS

CHAGAS-MAZZA DISEASE--Buenos Aires, 6 Jul--More than one-fifth of the men who were drafted in San Luis are suffering the Chagas-Mazza disease, it was officially reported. It is believed that these men have contracted the disease at their original residing locations, where the disease is considered endemic. Some cases were found, however, south of the Buenos Aires area, which until now was considered free from the disease. [Buenos Aires NOTICIAS ARGENTINAS in Spanish 1955 GMT 6 Jul 78 PY]

#### BRAZIL

#### BRIEFS

OUTBREAK OF LEISHMANIASIS REPORTED--Thirty-eight cases of leishmaniasis--a disease which causes ulcers in the mucosa of the mouth and nose--have been confirmed or suspected in Vale do Ribeira [presumably in Sao Paulo State]. This disease is communicable through mosquitoes, but not through personal contact. Since the species of mosquitoes involved has a very short-ranged flight, focuses of this disease are rather well-confined. [Excerpt] [Sao Paulo Cadeia Verde Amarela in Portuguese 1000 GMT 14 Jul 78 PY]

MEASLES OUTBREAK--Forty-three cases of measles were reported among children of farmers who are staying in an exposition park in Esteio, Rio Grande do Sul. The children attacked by the disease are not isolated from the other children because of the lack of space. [Text] [Porto Alegre Radio Guaiba in Portuguese 2150 GMT 4 Jul 78 PY]

COLOMBIA

#### BOLIVAR EPIDEMIC FOUND NOT TO BE TYPHOID

Bogota EL TIEMPO in Spanish 28 Jun 78 Sec A p 2

[Text] Barrancabermeja, 27 June--The epidemic which has been hitting the San Pablo, Middle Magdalena region since last week, and has caused the deaths of 30 persons, appears to be cerebral malaria rather than typhoid, as had been originally reported.

The mayor of San Pablo, in southern Bolivar, Tito Libio Vasquez, in cooperation with the Bolivar and Santander health authorities, requested the shipment of at least 5,000 doses of anti-typhoid vaccine, because the 1,300 which arrived from Simiti were depleted this afternoon.

Edilberto Timanca, the only doctor assigned to San Pablo, who heads the health station, said today that of all the fatalities resulting from the serious epidemic which has struck the population, only one was found to be caused by typhoid. He remarked: "The others died for really strange reasons."

He claimed that there was an urgent need for the government to send a laboratory to San Pablo to determine the true causes of the epidemic, and thus make it possible for the most prompt and effective action to be taken; inasmuch as the disease is threatening the lives of no fewer than 17,000 persons in the urban area. He added that the health station lacks all facilities for coping with the situation caused by the epidemic. He made an urgent request for the following drugs:

Chloro-clyl, in small vials or tablets; metipoth, in syrup or tablets; chloranphenol, in small vials or syrup; ampicylene, in capsules; ethacylene (versapen) for typhoid; cotton, alcohol; gauze; and hypodermic needles.

The doctor said that any amount of these drugs would not be too large, and explained that individuals or entities interested in cooperating may send aid to the civil defense agency in Bogota.

The only health station in San Pablo lacks beds to accommodate the individuals affected by the epidemic, and hence many of them have had to be sent to the health centers in Bucaramanga, Barranca, Gamarra, Puerto Wilches and Simiti.

3

The area hit by the epidemic extends from about Barrancabermeja to Gamarra, on the Magdalena River; however, the focus was discovered in San Pablo.

Today, a representative from the national malaria program arrived on the site to take samples for the purpose of determining the exact type of the epidemic.

The commander of a naval station detailed to San Pablo, Capt Nelson Quintero Rodriguez, expressed alarm over the effects of the epidemic, and said that he was ready to take immediate action in whatever area it was necessary.

4

DENMARK

#### BRIEFS

HEPATITIS OUTBREAK--The Frostrup camp was quarantined yesterday by the Thisted municipal Epidemic Control Agency. Five confirmed cases of infectious hepatitis led to the quarantine. 'We are posting signs prohibiting anyone from entering the camp," says the chairman of the agency, Police Chief Jorgen Bodenhoff. 'We are also asking the citizens to stay home as much as possible. Stores in Frostrup will have posters forbidding customers to touch the foods on display. A dirty well is also being filled Persons who stay at the Frostrup camp must get their water from a good in. public well. In a few days the county will probably set up a van containing toilet facilities to replace the latrines and we also hope to provide the campers with the opportunity to get warm baths. Everybody will be vaccinated. The last ones will get their shots some time Friday." Police Chief Bodenhoff points out that we are dealing with a relatively mild form of the disease and not the serious hepatitis spread by narcotics users' dirty cannulae. The patient's liver is infected by a virus which is spread by excrement contamination of food and water. The symptoms of the disease are fever and nausea during the first few weeks. Then the skin turns yellow. The discoloration disappears again, but the patient can be tired and weak for months. And they must be careful. Alcohol is absolutely forbidden for a long period of time. The liver cannot handle the strain. [Text] [Copenhagen BERLINGSKE TIDENDE in Danish 26 May 78 p 2] 8952

SYPHILIS SPREADS IN GREENLAND--The entire adult population on Greenland is now requested to participate in a nation-wide syphilis examination. Examinations have started in Godthab, but will be extended to all parts of the country during the summer and fall. The venereal disease first appeared on Greenland in the beginning of the 70's, but has spread widely since then. Medical authorities have therefore decided to ask all adults to undergo a blood test which will show the presence of the disease. It is pointed out that one can be afflicted with the disease without being aware of it, since it has virtually no symptoms in its early stages. [Text] [Copenhagen BERLINGSKE TIDENDE in Danish 26 May 78 p 13] 8952

#### DJIBOUTI

## BRIEFS

ACTIVITIES OF HEALTH MINISTRY--Ministry of Health and Social Affairs Preventive Medicine: Vaccinations: smallpox, 15,000; cholera, 8,000; yellow fever, 1,300; tuberculosis, 8,000. Remedial Medicine or Medical Treatment: 200,000 patients; 419,000 consultations; 4,000 surgical operations, including 2,000 major surgical operations. Epidemiology: Eradication of smallpox; fight against cholera, several cases of which were described; fight against malaria which had reappeared because of the rains and movements of populations from neighboring countries. Training of Personnel: Scholarships: Doctors 10 (France); Public Health School: 2; pharmacist: 1; Specialization of nurses: 4; Local Training: 1977 nurses, 10; 1978 nurses, 15. Integration of volunteers: 42. Construction: Ali-Sabieh tuberculosis center; Obock tuberculosis center; renovating and equipping of small centers. Increase in Motor Pool: 4 additional ambulances (France). [Text] [Djibouti LE REVEIL DE DJIBOUTI in French 6 Jul 78 p 3] 8143

# MASS IMMUNIZATION CAMPAIGN IN NORTHERN REGION Accra GHANAIAN TIMES in English 4 Jul 78 p 5 [Article by Solomon Addayini]

[Text]

MASS immunisation cam-

A MASS immunisation cam-paign against yellow fever, measles and tuberculo-sis is to start in the Northern Region next month. According to a circular to all regional officers of health throughout the country the Deputy Director of Medical Services (public health), said the campaign which is to be carried out on region-al basis aims at reducing the rising number of com-municable diseases in the country.

municable diseases in the country. To make this campaign a success, two regional heads of the medical field unit are already attending a briefing course in Accra. The general public is there-fore advised to co-operate to make the exercise a success.

7

#### BATTLE OVER PLAGUE REVIEWED

Madras THE HINDU in English 23 Jun 78 p 7

[Text]

The older generation still re-members with awe the periodic visitations of plague in the years gone by. The younger generation, brought up in the inoculated at-mosphere of the post-World War II years, has no idea of the epi-demic. The checking of the out-break of epidemics is an achieve-ment over which the public health authorities can be truly proud of.

proud of. Still the health administrators

Still the health administrators are not complacent. The holding of the 14th Inter-State plague control/surveillance meeting here last month indicates this. Plague has killed millions of people. It had been the major cause of human mortality in the country even as late as 1948. One can imagine what a course pla-gue had been in the country by going through the grim statistics of deaths due to plague between 1898 and 1948. Between 1898-1909 plague accounted for 47.88 per cent of the annual deaths. It fell to 33.51 per cent (1919-28) 3.56 per cent (1929-38) and 1.73 (1939-48). There was a decline in the

(1939-48). There was a decline in the number of deaths due to plague from 1939 to 1942 but it went up from 1943 and reached a peak in 1947 only to decline later. The reason for the 1943-47 rise was the socio-economic disturbances engendered by war famine and partition accom

panied large-scale by movement of people and foodgrains. The post-1948 downtrend may be due to the anti-insect measures due to the anti-insect measures taken up under the Malaria con-trol programme. There has been no human case of plague since 1971. However, in that year, rat-falls and death occurred in the Mahasu district of Himachal Pra-desh and there were ratfalls in Coimbatore district of Tamil Nadu. The State Government took up prompt preventive measures.

Though plague as an epidemic has disappeared, it might en-trench itself as an endemic. His-tory shows that it was endemic to the following regions: foot-bills of Himplowas Control L to the following regions: foot-hills of Himalayas, Central In-dia, in the water sheds of Vin-dhyas, Satpura and Maikal hill ranges, the water sheds of East-ern and Western ghats, Deccan plateau and Nilgiri foothills. The species of rate that acure

The species of rats that cause plague are the wild small and large bandicoots and also domes tic species. The rat fleas carry the infection.

Infection. The mortality rate can be as high as 50 to 90 per cent in un-treated cases. But if the treat-ment is started in the first 12 hours, the prospects of cure are very bright. Tetracycline is the drug and streptomycin and chlo-ramphenicol and trimethroprim-sulfa are the alternative drugs. Though vaccines are available the immunity is shortlived and

injections have to be given every injections have to be given every six months. Plague has now been divided into wild and domestic. The former is defined as plague existing in mature independent of man and the latter as that which is intimately associated with man and which has the po-tential for producing an epide-mic mic

tential for producing an epide-mic. The inter-State meeting made a review of the plague surveil-lance work done in the States of Karnataka, Andhra Pradesh and Tamil Nadu. It was noted that rat-falls had been sporadic in some of the border districts of the three States and occurred even as late as December 1977. The National Institute of Com-municable Diseases' Plague Re-search unit at Kolar in Karnataka examined 82,142 rodents and made serological investigations regarding 4,102 samples. Out of them 42 proved positive upto 1976. Of the 4,128 wild rodents examined in the last two years, five samples were "border line of diagnostic range." The ratfalls in Kolar District occurred in Nangli village in the Mulbagal taluk and Venkatagiri Kota vil-lage in the Chintamani taluk in July 1976. But the test proved negative. negative.

# BRIEFS

ENCEPHALITIS TOLL AT 64--Burdwan, June 29--The death toll from encephalitis rose to 64 during the past month. About 163 cases have been reported, according to the district health authorities who have appealed for help in their drive against mosquitoes. [Text] [Calcutta THE STATESMAN in English 30 Jun 78 p 3]

9

JORDAN

## 'AL-DUSTUR' CALLS FOR CHOLERA PREVENTION MEASURES

Amman AL-DUSTUR in Arabic 14 Jun 78 p 2

[Editorial by Salah 'Abd-al-Samad: "The Main Line of Defense Against Cholera"]

[Text] The concerned authorities in sisterly Syria have taken a number of precautionary measures on their northern borders in order to prevent the spread of cholera to their lands.

It is self-evident that these prudent measures represent a first line of defense for our country against the disease, but the main line of defense is still represented by the commitment of each citizen of our country to public and personal hygiene.

The Syrian precautionary measures and the call for an adherence to hygiene does not warrent any kind of anxiety or fear because the Ministry of Health and the concerned agencies in our country are vigilant in the performance of their duty. It is incumbent upon the citizens to cooperate willingly with these agencies and to follow the instructions which they will issue, foremost among which is keeping clean.

Hope remains steadfast and strong that the Directorate of Medical Services at the relief agency [UNRWA] will intensify hygiene measures in the [refugee] camps, as it did last year. These measures were successful at the time in protecting the refugees and emigrants from cholera.

# ANTICHOLERA MEASURES GENERALLY EFFECTIVE, SOME EXCEPTIONS

# Nairobi DAILY NATION in English 5 Jul 78 p 8

[Text]

ANTI-CHOLERA measures in Nairobi have been effective but the City Council has been unable to remove refuse or fill up pit latrines in some areas.

This was said by the City Medical Officer of Health, Dr. W.N. Mugo, in a report which was approved yesterday at the monthly council meeting.

The report said the refuse collection problem was still bad, particularly in all Eastlands estates.

He said: "The self-help approach has been utilised in providing pit latrines, sweeping and burning refuse within the villages."

"Clearing up is progressing satisfactorily, except when the council has been unable to remove refuse or exhaust overgrowth pit latrines."

The report said nearly all Harambee day nursery schools were unhygienic and unsuitable for young children.

Dr. Mugo also reported that he had taken measures to ensure the city was thoroughly cleansed.

He said there was a lack of vehicles but added that three extra cleansing vehicles were due for delivery soon.

About 67 per cent of the cleansing fleet was still waiting for repairs, the MoH said.

The report also said raids on bars classified as "eating houses" had produced "positive" results. They were now being maintained in sanitary states.

"Raids are continuing and out officers are spending more time giving simple and short health education talks to management and workers." it said.

#### BRIEFS

LOUANG NAM THA INOCULATIONS--Since mid-February, the Public Health Department of Louang Nam Tha Province sent mobile health teams to conduct antismallpox and prophylactic campaigns for the workers, cadres and the population of the province. Up to now, about 1,000 persons were vaccinated, incluing 400 women. On the other hand, the Health Department cadres taught the methods of using medicine to children, old people and pregnant women, who assimilated them with deep interest. [Text] [Vientiane BULLETIN QUOTIDIEN in French 20 Mar 78 p 5] 9018

VIENTIANE HEALTH WORK--To efficaciously perform prophylactic operations in 1978, especially those of the first semester, the National Department of Hygiene and Prophylaxis sent its cadres to suppress malaria bacteria and cure the patients suffering from this disease in Vientiane Province. More than 3,000 inhabitants of the districts of [Meuang] Nasaithong, [Meuang] Phonhong, [Meuang] Vang Viang, [Meuang] Thoulakhom, [Meuang] Saithani and [Meuang] Paksan had their blood examined, among which 500 malaria victims were detected. These cadres taught, furthermore the prophylactic methods against this disease and the three rules of cleanliness to the population. [Text] [Vientiane BULLETIN QUOTIDIEN in French 25 Mar 78 p 4] 9018

SAVANNAKHET HEALTH WORK--Since the middle of March this year, the personnel of the dispensary of the Savannakhet Subdivision organized two mobile Health Units associated with those of the district hospital and the commune of this area, to conduct an anti-cholera and anti-smallpox vaccination campaign among the cadres, soldiers and multiethnic population of the Muong Phinh district. More than 20,000 persons were vaccinated in 2 days. This work is still being actively pursued. [Text] [Vientiane BULLETIN QUOTIDIEN in French 25 Mar 78 p 5] 9018

CSO: 5400

LAOS

## MALAYSIA

# OUTPATIENT TREATMENT EMPHASIZED FOR LEPROSY PATIENTS

Kuala Lumpur NEW STRAITS TIMES in English 24 May 78 p 6

[Text]

SUNGEI BULOH, Tues. — The policy of providing out-patient treatment to people suffering from leprosy has reduced the number of inmates in the National Leprosy Control Centre here to about 1,700, Health Minister Tan Sri Chong Hon Nyan said today.

Prior to the introduction of the policy in 1969, there were more than 2,700 inmates, he added.

Under the policy, only those who needed spe cialised treatment or surgery were admitted into the centre. Tan Sri Chong was

Tan Sri Chong was speaking to reporters after having a dialogue gession with inmates of the centre.

Outpatient treatment was emphasised because it was necessary to treat leprosy patients as members of society suffering from an illness and not as outcasts. He said the Government encouraged leprosy patients to seek treatment as out-patients in hospitals, skin clinics and health centres rather than seek admission to the centre.

**Out-patients** 

to the centre. The policy was to reverse the situation where patients admitted to the centre developed a complex or were rejected by society.

society. He added it cost the Government about \$1,800 to maintain a patient for a year in the centre compared with only \$30 if out-patient treatment was given.

On complaints by inmates regarding unsatisfactory food, he said he took a serious view of the matter.

on the inmates' request for an increase in allowances, Tan Sri Chong said a committee comprising Health Ministry, Treasury and Public Services Department officials had been set up to look into this matter.

The recommendations of the committee would be presented to the Government for consideration

#### NIGERIA

# TRYPANOSOMIASIS INSTITUTE ISSUES URGENT FUNDS APPEAL

Kaduna NEW NIGERIAN in English 28 Jun 78 p 28

[Article by Ibrahim Madaki]

[Text]

# THE Nigerian Institute for Trypanosomiasis Research (N.I.T.R.), Kaduna, has appealed to eight northern states to come to its aid financially to avert a possible major threat of sleeping sickness epidemic and river blindness. The states are: Kaduna, Benue, Niger, Plataau, Gongola, Bauchi, Kano and Borno.

The institute has an effective surveillance team spread all over the infected areas of the country and has managed to drastically reduce incidence of human sleeping sickness in Nigeria.

Making the appeal to the eight states through the Kaduna State Military Governor, Group Captain Mouktar Mohammed, in Kaduna vesterday, the Director of the nstitute, Dr. Victor B. Braide, said that at least 500,000 Naira was needed to maintain the present level of field surveillance of human sleeping sickness and river blindness in the endemic parts of the country.

Dr. Braide told the governor that the institute was established as an international organisation in 1948 and has produced more than 400 scientific publications which are in use internationally.

He said the NITR was the only international research institute in the whole of West Africa. It has six scientific departments—three in Kaduna and the remaining three at Vom, near Jos, Plateau State.

Dr. Braide said that in addition to research activities, his institute was responsible for field diagnosis,

CSO: 5400

treatment and control of diseases among the human population throughout the country.

He said the responsibility for research in onchocerciasis (river blindness) was given to the institute in 1975 and since then much has been done in the field.

Dr. Braide said: "One of the major contributions of the NITR has been that of enhancing public health in rural areas of the country. The emphasis has always been on early diagnosis and treatment of sleeping sickness patients, since there was a better chance of cure during the early stages of the disease, he said.

He said if such patients were not treated, sleeping sickness patient could spread the disease to other people through the bite of the tsetse fly.

The director said that for advanced cases the institute has a 42-bed ward at Gboko in Benue State where the patients were treated as in-patients. Elaborating on the achievement of the institute, the Principal Research Officer (Entomology) Dr. J.A. Onyiah, said the institute has identified 11 deadly tsetse fly species and two of them thrived on human beings while others affected animals.

He said tsetse fly covered onefifth of the pastoral areas of the country. "The fly is evenly distributed in the southern part while it is in patches in the porthern part", he disclosed.

He said the institute has broken the transmission of the disease around the new Federal Capital, near Abuja.

He suggested that while the Federal Capital was being developed, the nomadic Fulani herdsmen should be encouraged to stay in one place in order to effect proper control.

Dr. Onyiah also suggested that the government should provide wells and boreholes to settle them properly

#### PEOPLE'S REPUBLIC OF CHINA

# TSINGHAI TO RAISE TRAINING LEVEL OF BAREFOOT DOCTORS

# Peking NCNA in English 0800 GMT 16 Jul 78 OW

[Text] Peking, 16 Jul (HSINHUA)--One-fourth of the barefoot doctors in Tsinghai Province are to be trained up to the level of graduates of secondary medical schools within 3 years. This was decided at a recent provincial conference on health and medical work.

Minority people in Tsinghai Province live in compact communities, about 9,000 barefoot doctors are scattered throughout rural areas and about 80 percent have attended two training courses. They form a fairly strong force auxiliary to professional medical workers in county and commune-run hospitals. Drawn from local peasants and herdsmen, they are familiar with local health conditions and have responsibility for health and environmental hygiene in their particular area.

Over 40 barefoot doctors at the Hungko commune in the Kolo Tibetan Autonomous Prefecture have already had full-time training. The commune covers a pastoral area of 1,200 square kilometres and is inhabited by over 2,000 Tibetan people. The majority of the barefoot doctors are capable of treating common and endemic diseases, can recognise over 100 medicinal herbs and can give acupuncture treatment. Since 1973, 14 of the 40 have received further training in provincial and prefectural hospitals. They can perform certain operations such as tape-worm removal, appendectomies, breast tumour removal, hernia repair and caesarian sections, and only transfer to higher level hospitals patients in critical conditions in need of major surgery.

There are 122 barefoot doctors in Tseku County in the Huangnan Tibetan Autonomous Prefecture. Almost all can treat common diseases using Western and Tibetan methods. There is a barefoot doctors' surgical team at a local commune.

A school was set up in 1975 by the provincial health bureau to offer advanced studies for barefoot doctors with clinical experience. All the province's barefoot doctors have the opportunity to improve their skills in hospitals and at training courses. City doctors have done their share to raise the level of barefoot doctors. Over 1,600 city medical workers have organized themselves into mobile teams to help train barefoot doctors in rural areas.

## PEOPLE'S REPUBLIC OF CHINA

## SHENSI COMMITTEE HOLDS MEETING ON PUBLIC HEALTH MOVEMENT

Sian Shensi Provincial Service in Mandarin 2330 GMT 14 Jul 78 HK

[Excerpts] The Shensi Patriotic Public Health Movement Committee held a meeting on the morning of 9 July. It listened to the report on the launching of the patriotic public health movement in Shensi in the previous period, studied various existing problems and made arrangements for the patriotic public health movement in Shensi during summer and autumn. Comrade Chang Tse, secretary of the Shensi Provincical CCP Committee and director of the Shensi Patriotic Public Health Movement Committee, presided over the meeting and made a speech.

Comrade Chang Tse pointed out: Around 1 May, a major patriotic public health movement was launched in the cities and countryside in Shensi and outstanding results were achieved. However, the movement was not adequately launched. In some localities and units, particularly some factories and mines, public health has been poorly developed; and there are still many problems in the management of lavatories in the cities and countryside, in catering and environmental sanitation and in the control of the three industrial scrap materials.

The party committees at all levels must strengthen the leadership of patriotic public health movement. At present, they must quickly take action, do a good job in promoting public health in summer and autumn and fully mobilize the masses to vigorously fight a people's war of eliminating pests and diseases. They must strengthen publicity on public health, do a good job in promoting the construction and management of various public sanitation facilities and educate the masses to seriously carry out various public health systems and other relevant regulations.

The meeting decided: In the next 4 months, from now to October, the cities and countryside in Shensi must seriously organize several "public health shock month" activities in close connection with production, do a good job in emphatically grasping environmental and catering sanitation and in improving the management of lavatories and vigorously eliminate mosquitoes and flies. Various counties and municipalities must organize a large-scale inspection, comparison and appraisal of work done in September and allow the patriotic public health movement to develop penetratingly, persistently and on a sound basis.

Present at the meeting were committee members of the Shensi Patriotic Public Health Movement Committee, and responsible comrades of various departments concerned and of the Shensi Public Health Bureau, some 30 people in all.

# PEOPLE'S REPUBLIC OF CHINA

## BRIEFS

HEILUNGKIANG HEALTH INSPECTION--The health inspection group formed by the Heilungkiang Provincial Revolutionary Committee inspected the patriotic public health campaign in 15 prefectures, leagues and municipalities and 116 counties, banners and districts in the province from 15 May to 5 June. The campaign was launched at the beginning of spring this year. By the end of May, the province had cleared 4.2 million tons of garbage, delivered 1.6 million tons of waste materials to the countryside and caught some 1.3 million rats. The inspection group called a meeting on 15 and 16 June to sum up the work in the province. Wang I-lun, secretary of the provincial party committee, chairman of the provincial committee on the patriotic public health campaign and head of the inspection group, presided over the meeting and made a summing-up speech. He called on the people throughout the province to continue the campaign in the summer and fall in order to bring about a thorough transformation in the public health situation in the province. [Harbin Heilungkiang Provincial Service in Mandarin 1100 GMT 26 Jun 78 OW]

NEW ANTIMALARIAN DRUG--Peking, 13 Jul--China has developed a new antimalarial drug of high efficacy, quick effect and low toxicity. Extensive clinical applications show that "ching hao su" (substance of apiaceus wormwood) acts faster than chloroquine in bringing down the patient's fever and eliminating the plasmodia in the patient's blood. The new drug can be administered orally or by intramuscular injection. Chinese pharmacologists are continuing their studies to improve the new drug which as yet cannot completely prevent relapses. [Peking NCNA in English 0716 GMT 13 Jul 78 OW]

# **SEYCHELLES**

## BRIEFS

EMERGENCY CHOLERA VACCINATIONS ENDED--The Emergency Order which requires persons arriving in Seychelles to have a valid cholera vaccination certificate is hereby revoked. A valid cholera vaccination certificate is still required for persons arriving from a cholera infected country. This notice is effective immediately. [Text] [Victoria NATION in English 24 Jun 78 p 6]

## URUGUAY

## COLONIA BEGINS INDOCTRINATION TO COMBAT HYDATIDOSIS

Montevideo EL DIA in Spanish 19-20 Jun 78 p 13

/Article by Fredys A. Cabrera/

<u>/Text</u>/ Colonia--The Honorary Departmental Commission for the Campaign Against Hydatidosis headed by Col Enso Curutchet, chief of Police, has been working intensively for the last 6 months with the purpose of effectively combating the suffering the disease has long inflicted on our country.

The campaign on the departmental level was initiated 24 May with the education phase in rural and urban schools and in Rural Development Committees. To this end, a team is presenting slide shows for prevention classes, in which neighbors and parents also participate.

Meeting the Authorities

In order to instruct students, educators and the general public in Colonia, a well-attended meeting was held at which the following were present: Col Dr Luis Guarino, executive director of Health Education of the National Commission for the Campaign Against Hydatidosis; Mrs Arla de Castro, its Orientation chief; and local officials.

Col Dr Guarino, the first speaker, gave a broad outline of the situation in our country in respect to hydatidosis. Uruguay is, as is known, one of the countries of the world with the highest rate of infection for both the human and animal sectors. This fact caused the formation in 1965 of an honorary commission which, from that date on, took charge of all the activities being carried out against the disease.

One of the main concerns of the commission, he said, was the attempt to find a medication that in some way would break the cycle of the parasite, which, as we all know, spreads the disease through the infection of dogs. In the dog's intestine lives a small tapeworm which lays microscopic eggs which infest the environment and which, on being ingested by men or domestic animals, form the hydatic cyst, or hydatidosis, inside their bodies.

## Artigas Plan

An effective medicine against this parasite was discovered in 1976 and the appropriate doses began to be administered and the Artigas Plan went into effect.

The plan, he continued, which will soon be implemented in this department, consists, basically, of the obligatory registering of all dog owners, the gradual reduction in the number of dogs, the obligatory treatment of the animals with the medication every 45 days and the obtaining of a license once a year.

Mrs Arla de Castro eminded the listeners of the severity of the hydatic cyst in our country, which has a morbidity rate of 20.3 per 100,000 inhabitants, which requires an average of 500 operations a year in Uruguay, a statistic which has remained constant for many years.

Of the 500 Uruguayans operated on 6 percent die although operation techniques are constantly being refined.

Afterwards, a film on the hydatic cyst was shown and at the end a demonstration was given, using police dogs from Colonia, on administering the drug which cures the disease.

## URUGUAY

#### BRIEFS

HEALTH CENTER VACCINATION DRIVE--SALTO--This city's Health Center is making plans for initiating a massive new campaign for the vaccination of school children throughout the entire area of this department. Details are now being worked out, which means that before the end of the month it could be possible to start the innoculations. Primary schools in the urban, suburban and rural areas of the department will be included. The vaccination campaign is sponsored by the Ministry of Public Health. A high rate of immunity to the different diseases to which school children are prone is being sought through this campaign. As was stated, the campaign will not only encompass the city, but also the different rural areas of our department. Therefore the different itineraries which are to be followed within the framework of this activity are being set up. As in previous years, the task of vaccination will be the responsibility of specialized officials from the Health Center while vaccines are being provided by the Ministry of Public Health. /Text/ /Montevideo LA MANANA in Spanish 20 Jun 78 p 20/ 9204

VIETNAM

# VENEREAL DISEASE IN VIETNAM

[Editorial Report] Hanoi SUC KHOE 20 May 1978 pages 2 and 6 discusses venereal diseases, a subject rarely mentioned in the Vietnamese press. In separate articles this periodical, which deals with real problems, the causes, progress and cure of gonorrhea and syphilis are described. Syphilis is explicitly cited as a problem in South Vietnam. The problem of gonorrhea is attributed to the continued existence of prostitution.

23

# ROLE OF MISSION TO EEC DETAILED

Gaborone DAILY NEWS in English 28 Jun 78 p 1

[Article: "Fight For Our Beef Is On"]

# [Text] By Andrew Sesinyi

The Botswana delegation to the European Economic Community (EEC) is currently launching a sizzling argument against the continued closure of the traditional beef exports in Britain and Botswana.

The delegation, headed by the Vice President and Minister of Finance and Development Planning, Dr Q.K.J. Masire, is on a negotiating mission carrying them to all the nine capitals of the EEC member countries. They left Botswana on Mond av.

The six man mission, comprising as well, the Minister of Agriculture, Mr E.S. Masisi, and the External Affairs Minister, Archibald Mogwe, will question the legitimacy of the closure of export markets for no practical veterinary reasons according to information received from the Ministry of Agriculture.

Ministerial sources said the delegation will punctuate their negotiations with assurances such as:

(1) Animals to be slaughtered at the abattoir will have to be certified fit for such purpose by the Director of Veterinary Services. The cattle will have to be from disease-free areas. As a point of strengthening their argument, the delegation will point out the fact that there has never been a single animal with foot and mouth disease which was slaughtered at the abattoir for the past 25 years (2) No SAT type of foot and

(2) No SAT type of foot and mouth disease has ever been introduced into the UK, France and other markets during all the years Botswana has been exporting beef.

3) There is every guarantee that Botswana beef is free from disease since the professional view holds that de-boned meat, which is chilled for a minimum of 48 hours before freezing is free from the danger of spreading disease. Only de-boned meat is exported from Botswana.

4) The system of cordon fences, quarantines and regular field inspection of cattle is adequate precaution against infected cattle reaching the abattoir. The National Veterinary Service of the importing countries has accepted this view.

Information from sources close to the Ministry indicates that the suspension of beef exports from Botswana has whipped up severe economic and political repercussions in the country.

The delegation will further inform the member states that during the past 18 years Botswana has been exporting meat to Europe, there has never been a single case of an outbreak of the Southern African type of foot and mouth disease in the importing countries.

Member states will further be enlightened on measures adopted by Government to combat the disease. A series of cordon fences and quarantines, which divide the country into four, has been built for this purpose, Ministerial sources also stated.

Cattle, sheep and goats in the nothern part of the country are vaccinated annually against SAT 1, 2 and 3 types of foot and mouth disease, sources also said.

Seventy percent of Botswana's meat exports go to the EEC countries. Although Britain and France are willing to import our beef they are not allowed to make a unilateral decision.

Also in the delegation are, Dr. J. Falconer, Director of Veterinary Services, MrT.S.S.Madisa, Chairman of the Botswana Meat Commission Executive Board, and Mr L. Mothibatsela of the Ministry of Finance and Development Planning.

Today the delegation will be in Netherlands, tomorrow in Belgium and they will be in West Germany on Friday. On July 5 they will be in Denmark and the following day in Luxemburg.

## BOTSWANA

# VET FENCE CONSTRUCTED ALONG RHODESIAN BORDER

Gaborone DAILY NEWS in English 27 Jun 78 p 2

[Text]

#### The veterinary fence being constructed along Botswana's border with Rhodesia from the Tuli Circle to Vakaranga will be completed by the end of August according to a spokesman of the Animal Health Department.

The spokesman said that nine watering points had been constructed under the same project and handed over recently. Construction of the patrol-road along the fence was also in progress, he said. The construction of the fence started last year and is one of several

projects which had not been budgeted for but had to be undertaken by Government as the political situation in the sub-continent deteriorated.

The Botswana Government believes that as the liberation war in Zimbabwe gets worse, the illegal regime will not be able to take effective measures

to combat animal diseases such as foot and mouth disease. The fence will now make it impossible for cattle from the two countries to water at the same points. In the past there was physical contact between cattle from Rhodesia and Botswana. About P1.8 million will be used on the project which is partly financed by the Swedish International Development Authority (SIDA) and the Domestic Development Fund. It is not yet known when the patrol-road and watering points will be completed.

Meanwhile construction of the first ever vaccine laboratory in Botswana will start next month. The laboratory will supply the country with foot-andmonth vaccine.

A French expert arrived in Gaborone last week to conduct the laboratory project following an agreement signed about a month back between the Botswana Government and French officials. The agreement includes the training of Batswana at the institute which will be constructed at Broadhurst known as Vaccine Production Institute.

## BOTSWANA

## ESTABLISHMENT OF FOOT-AND-MOUTH VACCINE LAB PLANNED

## Gaborone DAILY NEWS in English 26 Jun 78 p 1

[Text]

Plans are afoot for the establishment of Foot and Mouth Vaccine Laboratory in the country.

Two Franch experts, Mr Jacques Delmatto and Mr Fargeaud Daniel arrived in Gaborone last week and have already met the Minister of Agriculture, Mr E.S. Masisi for discussion on Phase One of the project.

In an interview, the experts said they would design Phase One of the vaccine laboratory last Friday.

Both laboratories will be build at Broadhurst.

Botswana Government and France signed an agreement for the construction of a Vaccine Production Institute in Broadhurst, last month.

The agreement includes the training of Botswana at the institute. They will be studying

Plans are afoot for the virus strains prevailing in southern Africa and develop corresponding specific vaccines.

The first phase is the construction of a temporary emergency unit to produce two million mono-valent doses each year to fight against one virus

Construction of the first phase is likely to start in July when building materials and French technicians are expected to arrive in the country. It is expected to cost P1,5 million, government officials have disclosed.

The second phase will probably be off ground after two years. This will be a permanent unit capable of producing five million tri-valent doses each year and is expected to cost about P2 million.

A series of cordon fences and quarantines has been built in the country in order to combat foot and mouth disease.
# REPORTS ON AFRICAN SWINE FEVER IN VARIOUS STATES

#### Outbreaks in Santa Catarina, Goias

#### Sao Paulo O ESTADO DE SAO PAULO in Portuguese 1 Jul 78 p 22

[Text] Yesterday in Brasilia, the Central Commission for Eradication of African Swine Fever confirmed the existence of a focus of the disease in Santa Catarina (in the municipality of Armazem), the country's leading high-pedigree hog producing state. Santa Catarina is also preeminent in the pork industrialization sector. At the present time 31 focuses of African swine fever have been confirmed in Brazil because, according to information made public yesterday by the Central Commission, the disease has also attacked animals in Barra do Pirai (Rio de Janeiro), Serra Negra (Sao Paulo) and Morrinhos (Goias). In Sao Paulo, the Secretariat of Agriculture announced that there are 28 reported focuases, 15 of which are "highly suspect." The most recent report of sick animals came from Candido Mota, where 17 hogs which showed symptoms of the African disease died.

The minister of agriculture, Alysson Paulinelli, who was in Sao Paulo participating in the ceremony marking International Cooperativism Day, said that "this is quite unfortunate," because the spread of the disease is causing "a serious decline in the domestic consumption of pork, for no reason," and is also preventing exports of the product "which have been progressing so well."

According to the minister, there is no reason for the population to stop consuming pork or byproducts thereof, because "only the slaughter and marketing of perfectly healthy animals is allowed." He said that "the inspection is extremely strict," and that he "would not be so irresponsible" as to claim that a certain product would not be detrimental to human health when, in fact, it was harmful. The minister also expressed regret that the disease has caused a suspension of exports of pork, resulting in losses to the country of about \$50 million this year. He explained that, during the past 10 vears, the domestic consumption of hog products increased from 4.5 to 8 kilograms per capita per year, and that the sector's exports, which were about 1,500 or 2,000 tons per year up until 1975, amounted to 20,000 tons in 1977.

27

#### BRAZIL

The minister added that the fact that a focus of African fever has appeared in a high quality breeding place (Igarape, Minas Gerais) does not invalidate the official recommendation that hogs not be fed food scraps. He recalled that, in Portugal, nearly all the animals affected were fed with food scraps, and that only 1 percent of the high quality herds (which were fed rations) contracted the disease.

He said that yesterday he had contacted the Union of Rations Industries for the purpose of exploring the possibility of having hog raisers supplied with rations in pellet form which, in the industrial process, have their ingredients heated at temperatures of over 100 degrees centigrade, and this eliminates the possibility of spreading the virus.

#### Situation

The focuses of African swine fever in the country at present are as follows: Rio de Janeiro: Paracambi, Favela Nova Brasilia, Teresopolis, Sao Goncalo (two), Campos, Marica (three), Duque de Caxias, Bom Jesus de Itapoana, Carmo and Barra do Pirai; Sao Paulo: Ourinhos, Leme, Roseira and Araras (two); Parana: Jacarezinho (two), Umuarama and Wenceslau Braz; Goias: Morrinhos; and Santa Catarina: Armazem.

Santa Catarina Trying to Find Causes in Armazem

This morning, a team of veterinarians and experts from the Santa Catarina State Coordination of Animal Health Protection will go to the municipalities of Armazem, where the first focus of African swine fever in the state was recorded, in a special effort to locate the origin of the hogs which comprise the region's herd. Late yesterday afternoon, the secretary of agriculture, Carlos Azambuja Loch, announced that the investigation that is to begin today is as important as the slaughtering of the animals, which may start on Monday.

The area hit by the African swine fever consists of the municipalities of Armazem, Praca do Norte, Sao Martinho, Laguna, Gravatal and Imarui, which contain a total of 30,000 hogs. According to the secretary, at the moment it is virtually certain that the 100 animals owned by Adilio Correa, on whose property the focus of the disease was discovered, will be slaughtered. A survey is yet to be made to ascertain which areas appear to be dangerous, and also for the purpose of slaughtering the animals located in them.

The North American expert, Robert Reichard, is already in Santa Catarina, where he will help in the investigation to discover the possibilities of contagion from the focus area in the other parts of the state.

#### More Corn Imports Required

### Sao Paulo O ESTADO DE SAO PAULO in Portuguese 1 Jul 78 p 22

[Text] In addition to causing reduced production in comparison with consumption, African swine fever may force Brazil to import a total of 2 million tons of corn by the end of the year to supply the domestic market. At the moment, through COBEC [Brazilian Warehouses and Trade Company], orders have been placed in Argentina and the United States for 500,000 tons, of which amount the first shipment of 6,800 tons will be arriving tomorrow in the port of Paranagua.

COBEC explained that, before the arrival of African swine fever, the possibilities had been explored for importing a minimum of 1 million tons, the equivalent of the difference between Brazil's production of corn (8 million tons) and its consumption (9 million tons). As a result of the disease, there has been a decline in pork consumption and a resultant increase in the demand for poultry and other animals whose feed is based on corn. Moreover, the breeders of healthy hogs, heeding the appeal from the authorities in the Ministry of Agriculture, have been substituting corn for the feed for their herds.

# Parana Hog Slaughter Delayed

# Sao Paulo O ESTADO DE SAO PAULO in Portuguese 1 Jul 78 p 22

[Text] Although four focuses of the disease were confirmed the day before yesterday, the Parana Secretariat of Agriculture has not yet taken any steps to eliminate the infected animals in the areas that have been hit. One of the persons in charge of the subcommittee studying methods of prevention and control 2 weeks ago, Clovis Pena, confined his remarks yesterday to the comment that "No steps have been taken yet. We are studying the matter and we need time. There are certain criteria to be considered. We cannot continue talking, because I have to return to the meeting at which we are constantly considering what to do."

Despite those "constant" meetings, some of the measures which are being attempted run counter to the technical standards recommended by research institutions specializing in hog raising, such as the Plum Island Animal Center in the United States, and even the recommendations of experts from the National Center for Hog Research, established by EMBRAPA [expansion unknown] in Concordia. A source from the Ministry of Agriculture said in Curitiba that the Secretariat of Agriculture wants to eliminate only the hogs on the properties that have been affected and those "kept in back yards within a radius of 5 kilometers," while preserving the breeding places which are "rationally managed." But the recommendations from the research call for the elimination of all hogs within a radius of between 10 and 15 kilometers, and of all animals in the area of the focus. The secretary of agriculture, Paulo Carneiro Ribeiro, was traveling yesterday. The Secretariat's general director, Joaquim Severino, instructed his secretary to tell the press that he was at a meeting at the Federal University of Parana.

As of yesterday, no measures had been adopted in Jacarezinho, despite the fact that the national secretary of agricultural and livestock protection, Jose Alberto Lira, had confirmed the existence of focuses of the swine disease in that town, as well as in Umuarama and Wenceslau Braz. However, there are still conflicting opinions to the effect that the deaths of the hogs which occurred recently were caused by the poisoning of the hogs resulting from eating the leaves of papaya trees. This is strange because, in the localities where most of the animals died, there are no papaya plantations, since they are areas completely dedicated to cane-raising.

#### Two More Sao Paulo Focuses

# Sao Paulo O ESTADO DE SAO PAULO in Portuguese 6 Jul 78 p 35

[Text] Yesterday, two more focuses of African swine fever were confirmed in municipalities in the state of Sao Paulo: Ribeirao Preto and Araraquara. The report was released by experts from the Ribeirao Preto Regional Agricultural Division [DIRA] of the Secretariat of Agriculture, who received yesterday the "positive" results of the material sent to Rio for testing 2 weeks ago.

As a precautionary measure, the health experts had already slaughtered 140 hogs from breeding places located in the urban area of Ribeirao Preto, where nearly 150 animals died after showing symptoms of African swine fever. The experts did not believe that the hog population in Araraquara was attacked by the disease, because only four animals had died over a week ago, and no other similar cases were reported since then.

# Angolan Fishing Boats Blamed

# Sao Paulo O ESTADO DE SAO PAULO in Portuguese 6 Jul 78 p 35

[Text] Yesterday, the minister of air, Araripe Macedo, said that, 2 years ago, seven fishing boats from Angola arrived in the port of Rio de Janeiro, carrying "refugees mingled with live animals, including African hogs." In making this statement, the minister refuted the official reports to the effect that the virus causing African swine fever may have been brought to Brazil through food scraps collected from airplanes in the Galeao airport and taken away to feed hogs. But the national secretary of agricultural and livestock protection, Jose Alberto Lira, said: "The important thing just now is not to argue over the origin of African swine fever, but to concentrate all possible efforts on the eradication of the disease." He reaffirmed the fact that there "is a strong suspiction" that the African swine fever was spread by food scraps collected from international aircraft; recalling that the owner of the Alta Floresta property in Paracambi, where the first focus appeared, was feeding his animals waste from the Galeao airport.

According to the air minister, in addition to the seven Angolan ships which docked in Rio de Janeiro on 25 April 1976, other ships of the same origin arrived in other ports on the Brazilian coast (Bahia, Sao Paulo and Santa Catarina) during the same period. He explained that the interval that has elapsed since then "is a quite reasonable one to enable the virus to take on the present epidemic proportions."

Araripe Macedo added: "To claim that the Galeao international airport was the most likely port of entry for African swine fever, disregarding other open ports on the 8,000 kilometers of Brazilian coastline, is an illogical and senseless theory. The food scraps aboard airplanes are destroyed, according to international standards." In his opinion, the refugee ships "constitute a rather more convincing hypothesis as having been the natural vehicles for the spread of the virus of African swine fever in Brazil, at least until it has been proven that some African hogs have traveled to the country on TAP's [Portuguese Airlines] comfortable jumbo jets."

The Parana government is trying to increase the capacity for hog slaughtering in that state, and has even attempted to arrange for the operation of meatpacking plants such as those of the Frimesa and Iguacu Group, which are governed by an agreement. This report was released yesterday by the secretary of agriculture, Paulo Carneiro, when he stated that, to date, the state government has used 1.3 million cruzeiros to combat African swine fever, and that it has now requrested of the Ministry of Agriculture an advance sum of 5 million cruzeiros out of a budget of 9 million cruzeiros to maintain epidemiological control in the state.

Rio Claimed Hardest Hit

Rio de Janeiro O GLOBO in Portuguese 5 Jul 78 p 16

[Excerpts] There is no possibility that live hogs or hog carcasses will be allowed to leave the state of Rio for adjoining states in the near future. The interstate boundaries remain closed, because it has been discovered that the African swine fever in the state of Rio is far more serious than in other parts of the country, where focuses of the disease have been found.

This report was issued yesterday by the chairman of the state subcommittee for eradication of African swine fever, Marino Valentino, and subsequently confirmed by the regional representative of the Ministry of Agriculture in Rio, Rubens Marsilac. On Thursday, the Santa Cruz slaughterhouse may possibly resume the slaughter of hogs. All that is needed for this is that the veterinarians on the commitee issue certification attesting to the good health of the animals.

With a total of 34 farms assessed by the Rio State Hog-Raisers Association, the veterinarians' visits will be made at the request of the breeder.

Yesterday, the first request reached the Ministry of Agriculture's regional representative's office, asking for a health examination for slaughtering 600 hogs at the Santa Cruz slaugherhouse. The requester is the deputy chairman of the Rio State Hog-Raisers Association, Jose Vilhena de Carvalho.

As the Ministry of Agriculture's representative, Carlos Lima, explained, the clinical testing of the herdwill be made by sampling, and it is not yet know what percentage of the total number of animals will be subjected to inspection. The veterinarian thinks that, for example, out of a herd of 300 hogs, 25 tests may be sufficient to allow or prevent the slaughter.

The dismantling of the 12 road blocks set up on roads bordering the state of Rio suggested the possibility that the slaughtering might be allowed. The measure, decided upon several weeks ago by the national secretary of agricultural and livestock protection of the Ministry of Agriculture, Jose Alberto Lira, is one of the items in the administrative directive the publication of which in the "Official Journal" is still being awaited.

### Industrialization

The Rio State Hog-Raisers Association estimates that there are 20,000 hogs about to be slaughtered throughout the entire Rio State territory. When the slaughterhouses have been reopened under federal inspection, the meat may only be approved as is, for immediate consumption. There is a ban on the use of this meat for storing for industrial purposes; that is, for the manufacture of linguica sausage, frankfurters, chourico sausage, tenderloin, breast of pork, etc.

Marino Valentino is of the opinion that there will be consumers for the amount of meat resulting from the slaughtering, denying the possibility of a decline in the market as a result of the African disease. He also announced that "permission may possibly be given for the sale of pork at fairs, but only in refrigerated cars (mobile cold storage units), as well as of animals that have been slaughtered in slaughterhouses under federal inspection."

### Another Focus

However, a focus of African swine fever has been discovered in the state of Rio, in the municipality of Itaboral. Now there are nine regions hit by the disease: Paracambi, Favela Nova Brasilia, Teresopolis, Sao Goncalo, Bom Jesus de Itabapoana, Campos, Marica, Caxias and Itaborai.

Material collected from hogs in the municipality of Nova Iguacu is being examined in the Ministry of Agriculture's laboratories. Marino Valentino reported that, although they are apparently sick, it is not possible to determine whether they are carriers of the disease until after the blood absorption tests. Starting tomorrow, work will be intensified on "depopulation" of the areas on the urban perimeters of Campos, Bom Jesus de Itabapoana and Grande Rio. Although it has been in effect since 1937, the ban on hog raising in urban areas may only be accomplished as a result of the African disease. This "depopulation" consists of the Ministry of Agriculture's purchasing of all the animals raised in those areas. A total of 1,171 hogs were bought and slaughtered in the Rio slum areas of Nova Brasilia, Alvorada, Inferno Verde and Rato Molhado, in an operation which cost the ministry 1.5 million cruzeiros.

To date, this indemnification has been paid only to the slum dwellers. Since the appearance of the first focus of African swine fever in Paracambi, 2 months ago, 7,500 animals have been slaughtered, 6,011 of which were located in the focal region of that municipality.

No Barriers

The permission for free movement of live animals and industrialized meat within the state of Rio was confirmed yesterday morning with the removal of the health inspection trailers of the State Secretariat of Agriculture from the roadblocks put up in Viuva da Graca, Serra das Araras and Paracambi.

Inspectors Manoel Teixeira da Silva and Jose Susano, who were working at those roadbalocks were informed of the measure on Monday night. They remained at the site, but only watching the railers with the materials used for the inspection. The Federal Highway Police, who were assisting the inspectors, also received instructions to have their patrols return to their stations.

Although the traffic was allowed, as of 1400 hours yesterday, no vehicle carrying live animals passed through the barriers. The inspectors said that the breeders probably had not been informed of the release.

# GOVERNMENT CONFIRMS 13 FOCUSES OF AFRICAN SWINE FEVER

### Minas Confined Herd Infected

# Sao Paulo O ESTADO DE SAO PUALO in Portuguese 28 Jun 78 p 24

[Text] Minas Gerais, the third ranking hog producer in the nation, with 4.5 million hogs, is now a state hit by the African swine disease and requires special attention on the part of the Ministry of Agriculture. This conclusion was reached yesterday in Belo Horizonte by the Minas authorities, who announced the presence of another focus of the disease in Igarape, a municipality in the Belo Horizonte metropolitan area located in the central part of the state 400 kilometers from Volta Redonda, on the border of Rio de Janeiro, where the first focus in Minas appeared 2 weeks ago, forcing the slaughter of 45 hogs.

According to an explanation given by the federal representative of the Ministry of Agriculture, Auricedes Alves Moreira, in a collective interview, the most serious aspect is the fact that the second focus of the disease and the 13th in Brazil appeared on the very property which had been kept carefully disinfected by experts in hog raising. Sixty of the 1,100 hogs raised in confinement by the owner, Lincoln Viana Filho died, and the laboratory tests made on the island of Fundao confirmed the disease the day before yesterday.

The ministry's representative announced that all the animals on the property would be shot to death starting tomorrow, and buried in ditches. Thus far, the experts have not decided on the depopulation of hogs in other breeding sites located in the municipality of Igarape, in the belief that the disease is limited to Lincoln Viana Filho's property. Hog-raising is important in the region, but the number of animals there by no means competes with the large herds in the regions of the Minas Triangle, and the Mata and Upper Paranaiba areas.

The technicians also do not know how the disease could reach Igarape, in the heart of Minas, since the Rio and Sao Paulo borders have been stringently guarded. It is suspected that the virus causing the disease was carried to Igarape by a traveling salesman of veterinary products who, a few days ago, had access to the hog farm of Lincoln Viana Filho, who usually keeps the animals in isolation.

Rio Grande Requests More Resources

Yesterday in Porto Alegre, the Rio Grande do Sul secretary of agriculture, Getulio Marcantonio, admitted the lack of financial resources for controlling and combating the African swine disease, because: "We receive only 2.6 percent of the state budget, whereas the ideal share should be about 3 percent." He added: "Therefore, we are asking the state government to make available a special sum of 2.5 million cruzeiros from the state's budgetary resources to meet the expenses related to the prevention of the disease' entry into the state."

Getulio Marcantonio visited the Legislative Assembly's Committee on Agriculture and Livestock to report to the deputies on the precautions taken by his secretariat to prevent the entry of the African swine disease into the state, and the measures to eradicate the traditional swine disease, which was responsible for the death of 100 animals in the municipality of Sao Valentim alone. In addition to citing the preventive measures taken by creating 23 inspection stations on the Santa Catarina and Argentine borders, the secretary announced that a bill is under way to ban the use of garbage and food scraps to feed hogs, and asked the deputies to make laws forcing hograisers to have their animals inoculated against the traditional swine disease.

#### Negative Tests in Parana Areas

Yesterday in Curitiba, Parana's secretary of agriculture, Paulo Carneiro Ribeiro, said that he had received the results of the tests made on material from dead hogs in the Jacarezinho region, which showed that the swine disease had not yet reached the state. Additional results are being awaited, and the secretariat is planning a drive to encourage the consumption of pork, because the decline in sales concerns the secretary.

### Brazil-Paraguay: Traffic Control

Today in Ponta Pora, veterinarians and experts from the two countries concerned over the transmission of the virus of African swine fever will meet to decide on traffic control on the border between Brazil and Paraguay. The meeting was requested by the health authorities of Pedro Juan Caballero of the Ministry of Agriculture's representative in Mato Grosso do Sul.

The confirmation yesterday in Brasilia of two more focuses of the African swine disease in Caxias and Marica, in the state of Rio de Janeiro, has now brought the number of focuses of the disease existing in the country to 13, according to the national secretary of agricultural and livestock protection, Jose Alberto Lira, who considers the situation under control, "although there is still great concern on the part of the government." The minister of agriculture, Alysson Paulinelli, for his part, signed an administrative directive authorizing the Ministry of Agriculture's veterinarians to seek aid from the federal, state and municipal authorities, the armed forces and the auxiliary forces in all instances wherein there is a need for immediate, nondeferrable action to eradicate African swine fever.

Rio de Janeiro, where there are now eight focuses of the disease (Paracambi, Alcantara, Bom Jesus de Itabapua, Campos, Teresopolis, the Nova Brasilia slum, Caixas and Marica) is being treated by the health authorities as a special area for the eradication of the swine disease. There is still a ban on the interstate movement of hogs, but today, or perhaps tomorrow, the slaughtering of these animals is due to be allowed in only six slaughterhouses throughout the state.

According to Jose Alberto Lira, those meat-packing establishments will have to meet the following requirements for slaughtering: a. an inquiry and certification from the hog suppliers to determine whether the animals are healthy and of native breeds; b. those establishments must be subjected to a federal health inspection and in a position to apply heat processing to the entrails, blood, viscera and other waste, to eliminate any possibility of contamination; c. the meat-packers must inform the health authorities of the product's destination, that is, they must identify the retailers or wholesalers who will be selling the product to the consumer.

Jose Alberto Lira explained that the decision to allow the slaughtering under special conditions in Rio de Janeiro was a technical necessity, because the healthy herd is still expanding, thus increasing the risk of contamination.

As for the other focuses that exist in the country, Jose Alberto Lira announced that they are as follows: in Sao Paulo: Ourinho, Roseira and Leme; and in Minas Gerais: Volta Grande and Igarape.

# Argentina Intensifies Control Measures

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 28 Jun 78 p 24

[Text] Buenos Aires--The National Animal Health Service (SENASU) has adopted stringent health control measures on the Brazilian border to prevent the importing of hogs (which is currently banned) and the resultant contamination of Argentina's hog population with African swine fever.

SENASU sent the instruction to all border stations, demanding a strict inspection of pork products and byproducts from Brazil. The order calls for the burning of such products on the border after they have been seized by the Argentine government.

The entity also requested the cooperation of the Argentine Hog Raisers Association so that all the measures required to prevent the disease from reaching the country may be adopted. Both the raisers and the authorities have expressed great concern over the possibility of the contamination of Argentina's hog population. There have been persistent rumors during the past few days to the effect that contaminated meat is being exported from Brazil to both Argentina and Paraguay.

### Disease Changes 1978 Inflation Rate

Rio de Janeiro JORNAL DO BRASIL in Portuguese 28 Jun 78 p 16

[Text] Brasilia--The chief economic adviser of the Ministry of Finance, Mr Marcos Amorim Neto, announced that the inflation rate for this year (which was predicted by Finance Minister Mario Henrique Simonsen as 33 percent) will be affected by African swine fever, which will force the government to import more beef. Moreover, negative effects are beginning to show up abroad: Spain has now cancelled contracts for the purchase of pork.

Marcos Amorim expressed regret that "This happened just after a great effort which we made to develop this sector (exporting of hog products) since 1976." He explained that the problem of African swine fever is a direct result of the fact that pork is the immediate substitute for beef, which "is now in short supply on the markets in certain areas."

### Disease Infects Parana Hogs

Rio de Janeiro O GLOBO in Portuguese 29 Jun 78 p 15

[Text] Brasilia--Yesterday, the existence of 11 new focuses of African swine fever was confirmed, four of which are in Parana which, thus far, has succeeded in remaining free of the disease. Two focuses appeared in Rio de Janeiro (in Carmo and Cordeiro), and five more in Sao Paulo (in Araras, Avare, Bananal, Pirassununga and Vera Cruz Paulista). The report was released by the national secretary of agricultural and livestock protection, Jose Alberto Lira. According to his advisers, Minister Alysson Paulinelli, who learned about the situation on Tuesday night, "could not sleep."

The focuses in Parana appeared in the muncipalities of Jacarezinho (two), Umuarama (one) and Venceslau Braz (one). No reports were forthcoming from the other states, and the same situation continued in Minas Gerais, with two focuses, and Santa Catarina, the largest hog producing state, with two suspected focuses in Criciuma and Armazem. A total of 26 focuses of African swine fever have now been confirmed in the country.

The vice-president of Sadia, Zoe Silveira d'Avilla, who met with Minister Paulinelli yesterday, expressed his concern over the decline in pork consumption, and requested further information on the absence of danger in the product for human consumption.

Jose Alberto Lira announced that the standards , consisting of a handbook of instructions for veterinarians, would be made public today, and said that the operations to combat and eradicate the disease would be intensified.

He gave assurance that "Operation Refuse" would be intensified to stop the cycle of swine fever, because garbage is considered the main vector. The meat-packing establishments in Rio de Janeiro which will be allowed to move and slaughter live hogs will be announced today.

The movement and slaughter of any livestock except hogs are permitted, both within the states and in interstate operations. According to Lira, there is no reason for a ban, because the risk is minimal in these cases.

To date, bans have been imposed on 11 properties in Rio de Janeiro, with 7,563 hogs slaughtered; on 27 in Sao Paulo, with 1,519 hogs slaughtered; and on four in Minas Gerais, with 52 animals slaughtered.

#### Administrative Directive

Brasilia--Yesterday the minister of agriculture, Alysson Paulinelli, authoriized the veterinarians in the federal and state services to adopt the necessary measures for eradicating African swine fever. An administrative directive from the minister has authorized veterinarians to seek assistance from federal, state and municipal authorities and from the armed forces to execute all the recommended animal health measures, such as bans on property, movement, slaughtering and cremation of animals which are suspect and sick.

The veterinarians will be required to notify the government agencies indicated by the Ministry of Agriculture immediately of the measures that have been adopted to carry out the work of eradicating the disease.

Meat Prices Could Rise

The secretary of agriculture and supply for the state of Rio de Janeiro, Jose Resende Peres, stated yesterday in Rio that if the refusal to consume pork on the part of a large sector of the population continues, an arroba of steer beef will soon be costing 500 cruzeiros, which is tantamount to saying that "Beef prices to the consumer will increase to levels unprecedented in the country."

Resende Peres justified his prediction by explaining that the interval between periods of beef production is starting, when the supply is normally low. "And in the case of this interval between production periods, in particular, the problem is even more serious, inasmuch as the Brazilian herds have declined to levels that were never anticipated."

The secretary of agriculture explained that it is irrational to abstain from eating pork out of fear of African swine fever. "It has been widely publicized that this disease is harmless to humans and other animals. Furthermore, every hog carcass slaughtered at a meat-packing house is first examined by a veterinarian who checks the state of its health." Resende Peres announced that the price of an arroba of steer beef at present in Aracatuba stands firm at 350 cruzeiros ("on the hook weight"), and in Governador Valadares at 370 cruzeiros (live weight). He claims that mention is being made of 400 cruzeiros per arroba in Campos; and that, in Central Brazil, a good weaned calf now costs 2,400 cruzeiros.

"Since it is impossible to import meat from Paraguay for health reasons, or from Uruugay because there are no available supplies, or from Argentina because the volumes imported are insignificant, if the people persist in not eating pork, within a short time the price of an arroba of steer beef may easily amount to 500 cruzeiros. It is the wrong time for an increase in demand, in view of the decline in the supply."

In Pirai

The vice-chairman of the Rural Association of Southern Rio de Janeiro, Joao Marcos de Cunha Lima, considers the situation of the hog raisers in Barra do Pirai and Pirai to be "desperate." He gave the example of his own experience (he is the owner of the Sao Marcos Ranch, in Pirai): His herd of 232 hogs was completely slaughtered by the Ministry of Agriculture authorities.

"The slaughtered animals included 100 breeding females. Today (yesterday) is the 28th day since the slaughter, and we have not yet received any indemnification from the government. My hogs were worth 4.576 million cruzeiros. The price was a fair one at the time of the government's action. But today, after all this time, things are different; because added to the fact that we cannot raise our animals any longer, we do not have the money with which to pay the bills for the business itself."

Details on Parana Outbreak

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 78 p 26

[Text] As of yesterday afternoon, the experts from the Secretariat of Agriculture in Parana, located in Jacarezinho, Venceslau Bras and Umuarama, where the Ministry of Agriculture confirmed the existence of focuses of African swi fever, had not yet obtained further information about the problem, nor any instructions on the combating of the disease that is to be carried out. All that they received was a telephone message which did not specify the properties affected nor the number of animals killed by the disease. The only recommendation made was to isolate the suspected properties and reinforce the barriers to prevent the movement of animals.

The greatest confusion occurred in Jacarezinho, where the existence of two focuses was confirmed. However, the veterinarians did not know where those sites were; because, 15 days ago, they had noted six suspected properties in the area, and collected material on them for testing, but they do not know on which of them the tests proved positive. The situation was identical in Umuarama, which has approximately 450,000 hogs, representing 6.3 percent of the state's herds. The head of the Secretariat of Agriculture's regional group was traveling, and there was no veterinarian on the premises. However, according to Nelson Hauinsdin, chief of the regional office of the ACARPA [Association for Rural Credit and Assistance of Parana], four properties in the region have been closed down.

In Venceslau Bras, the confirmation of a focus where 21 hogs have died to date has caused desperation among the municipality's 1,200 rural landholders because, according to Mayor Lauro Carneiro Siqueira, "The majority have hogs both for selling and for their own consumption, in addition to planting beans, rice and corn." In his opinion, "If it becomes necessary to kill the regional herds (15,000 hogs), there will be economic chaos in the municipality. This year, we have already experienced losses amounting to 90 percent in beans, 90 percent in rice and 70 percent in corn. The collections made in the municipality declined by 40 percent during the past few months."

# Largest Herd

Parana had the largest herd of hogs in the country, with 4.2 million animals, and even exported meat to European countries. According to the Secretariat of Agriculture's Rural Economy Department, in 1976 Parana exported 7.2 million kilograms of hog byproducts, 43.68 percent of which went to Italy, and 31.18 percent to Spain.

# Vale do Paraiba Swine Slaughtered

# Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 78 p 26

[Text] Yesterday, forces from the Vale do Paraiba Military Police, using 22 caliber carbines, killed 1,200 hogs in the municipality of Roseira. Two extermination areas were set up by the military police, inspectors from the Secretariat of Agriculture and personnel from the mayor's offices of Pinda-monhangaba and Aparecida. The first focus of African swine fever was located in a clandestine pigpen in the center of Roseira, and all the animals within a 5-kilometer radius were slaughtered, including those in a pigpen located at kilometer No 253 of Dutra Road, near the Roseira restaurant. Although no sick animals were found in that location, 350 hogs were killed as a preventive measure. All the slaughtered animals were burned in a large open ditch in the area, which was later covered with lime.

In other towns in Vale do Paraiba the inspection is strict, so as to detect other focuses. In Aparecida, Amauri Santos, a large-scale hog raiser, has had his animals under constant observation; while in Guaratingueta, the authorities from the House of Agriculture, the military police and the mayor's office have been following up the confirmed cases and promoting strict inspection, so that breeders will not use food scraps as supplementary feed for the animals. The so-called "hog washes" are being buried or burned, and the movement of animals is also banned. Yesterday, troops from the 02007th Military Firing Range in Avare slaughtered 14 hogs from the Vale Verde ranch owned by Rui Aidar, on which a focus of the disease was discovered. It was not until the afternoon of the day before yesterday that the laboratory of the Federal University of Rio de Janeiro reported the results of the analysis of the material collected from a hog which died 10 days ago. Today, the veterinarian from the local House of Agriculture, Gilson Soares Proba, is scheduled to meet with the municipal authorities to establish the precautions to be taken in connection with the other herds in the region.

In the urban area of Ribeirao Preto, the local DIRA [Agricultural Directorate ?] slaughtered 140 hogs even before learning the results of the test made to ascertain the existence of the focus in the municipality. Even if the traditional disease is involved, since those animals have not been inoculated they could not resist the disease, according to the veterinarians, who added that an additional 150 had already died some days previous.

In Vera Cruz, a region of Marilia in which another focus of the disease was discovered, a veterinarian has already proceeded to survey the hog population for subsequent slaughtering. Experts from the Marilia DIRA are devising the plans to be carried out in the radius of that focus.

#### Instructions

Instructions from the office of the secretary of agriculture, Paulo da Rocha Camargo, stating that all the information regarding the disease is to be sent to Sao Paulo first, have hampered an official survey to be conducted jointly with the Campinas CATI [expansion unknown]. Meanwhile, it has been learned that in Leme eight properties were affected, with 230 animals slaughtered; in Araras, two properties were infected, and 32 animals slaughtered; in Roseira, 105 properties, with 697 animals killed; and in Ribeirao Preto, one property affected and 140 animals slaughtered. No focus was identified in Ribeirao, only a group of infected hogs, which may possible have been taken from another town. According to the office of the coordinator, as of yesterday, a special fund of 1.413 million cruzeiros was made available for paying the breeders indemnification for the slaughter.

#### Ourinhos

Yesterday, veterinarian Bernedt, who has been assigned as general supervisor of the campaign against swine fever in the municipality said: "It is too soon to calculate how much indemnification will be paid to the owners of hogs slaughtered in Ourinhos, because the initial prediction was that 3,000 animals would be slaughtered, and thus far not even 1,500 have been killed."

#### Hog Cholera in Para

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 78 p 26

[Text] Yesterday, the Ministry of Agriculture's state directorate in Para announced in Belem that nearly 10,000 hogs have died or are threatened as a result of swine disease in the state; and that, in this instance, it is not the African type and has not occurred recently, but it is a type that is almost endemic in the island of Marajo region, known as traditional swine disease. The ministry's experts do not see any connection between these cases and the current epidemic which has hit a large number of hog herds in the country.

Owing to the countless reports received during the past few weeks from hog raisers in Marajo, who are alarmed over the cases of disease, director Laudelino Soares sent a team comprised of two veterinarians to survey the situation. They reported that about 10,000 hogs are doomed by the disease, and most of them have already died.

#### Santa Catarina Test Results Awaited

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 78 p 26

[Text] Although apprehensive about the possibility that the tests on meat samples may prove positive, confirming the existence of African swine fever in Santa Catarina, the secretary of agriculture, Carlos Azambuja Loch, still hopes that this will not happen. He said that the five hogs which died in the municipality of Armazem, in the southern part of the state, were part of a herd of 100 animals, and that since the samples were sent to the laboratory on the island of Fundao, in Rio, no further deaths of animals have been reported. If, in fact, it were a matter of African swine fever, he thinks that more cases of illness would have occurred among the hogs, which did not happen. However, the final answer will not come until the last laboratory tests have been made, and they were not completed as of yesterday.

Moreover, although he sent more samples of pork to the Fundao laboratory from the municipalities of Irineopolis, Campo Ere, Massaranduba, Schroeder, Videira, and Azambuja, Loch claimed that these cases are not a matter of great concern.

Since yesterday, the chief of state coordination of animal protection, Edmundo Publitz, and the representative from the Ministry of Agriculture in Santa Catarina, Alberto Santos, have been in Brasilia, where they were summoned by Minister Alysson Paulinelli to report on the precautions that had been taken to prevent the African disease from reaching the state.

In Santa Catarina, epidemiologist Robert Reichard, from the United States Department of Agriculture, who is in Brazil advising the authorities on African swine fever, is being awaited.

# Disease Denied in Alagoas

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 30 Jun 78 p 26

[Text] While some hog raisers admitted yesterday that the swine disease had affected their herds, causing the animals to die, in the Alagoas town of

Arapiraca, 136 kilometers from Maceio, veterinarians associated with the National Animal Health Program denied any incidence of the disease; however, they announced that all the preventive measures are being adopted to spot any occurrence of the disease.

Veterinarian Wilma Canuto listed some of the measures which the breeders should adopt, while qualifying her remarks by saying that, to date, the disease has not been noted in the hog herds of Arapiraca, the second largest town in Alagoas.

According to reports from Arapiraca, it all began on Monday when some hogs died in small breeding locations on the outskirts of the urban area, all with the same symptoms: high fever, constant vomiting, dysentery and teeth grinding. The population was alerted, and few are still buying pork. Yesterday, a great deal of pork was discarded both by consumers and slaughterhouses.

# NEW AFRICAN SWINE FEVER CASES REPORTED DAILY

#### 28 June Confirmations

# Rio de Janeiro O GLOBO in Portuguese 29 Jun 78 p 15 PY

[Excerpts] Brasilia--Eleven new African swine fever outbreaks were confirmed yesterday: four of them in Parana State, which up to now had managed to remain free of this disease. Two new outbreaks appeared in Rio de Janeiro: Carmo and Cordeiro. Sao Paulo State registered five new outbreaks: Araras, Avare, Bananal, Pirassununga and Vera Cruz Paulista. The information was released by Jose Alberto Lira, national secretary for agriculture and livestock.

In Parana State the outbreaks are located in the following districts: Jacarezinho (two), Umuarama (one), and Venceslau Braz (one). No new reports have come from the other states, and the situation remains the same in Minas Gerais, with two outbreaks, and in Santa Catarina, the main hog-raising state, with two suspected outbreaks in Criciuma and Armazen. At this point there are 26 confirmed outbreaks of African swine fever in the country.

#### 30 June Confirmations

Rio de Janeiro O GLOBO in Portuguese 1 Jul 78 p 10 PY

[Summary] Three new focuses of African swine fever were confirmed yesterday: one in the municipality of Armazem in Santa Catarina; the second in Morrinhos, state of Goias; and the third one in Barra do Pirai, state of Rio de Janeiro. All told, there are now 31 confirmed focuses of this disease in the states of Rio de Janeiro, Sao Paulo, Minas Gerais, Parana, Santa Catarina and Goias.

CSO: 5400

BRAZIL

BRAZIL

TOTAL OF SWINE FEVER FOCUSES IN PARANA REACHES EIGHT

Sao Paulo Cadeia Verde Amarela in Portuguese 1000 GMT 20 Jul 78 PY

[Text] Parana--Three new outbreaks of African swine virus were confirmed in Parana State. The virus was discovered in Nova Esperanca, Ipora and Venzeslau Braz. With the discovery of these new outbreaks the total number comes to eight focuses.

In Florianopolis the Santa Catarina agriculture secretary confirmed also the discovery of seven focuses of African swine virus in the state. The focuses are in the municipality of (Souroger) in the Itajai Valley, where 20 animals were infected by the virus.

BRIEFS

EIGHT SWINE FEVER OUTBREAKS--Brasilia--Jose Alberto Lira, secretary of agricultural defense of the Agricultural Ministry, has confirmed new outbreaks of African swine disease in the cities of Jundiai, Itapira, Araraquara, Tupi Paulista, Flora Ric and Irapuru in Sao Paulo state; and Piraquara and Santa Helena in Parana state. He reported that two other outbreaks were confirmed in the interior of Minas Gerais and Espirito Santo states. [Text] [Porto Alegre Radio Guaiba in Portuguese 2150 GMT 10 Jul 78 PY]

NEW SWINE FEVER OUTBREAKS--The Sao Paulo Agriculture Ministry delegation yesterday confirmed the existence of three new focuses of African swine fever in the municipalities of Itapira, Tupi Paulista and Serra Negra, and for that reason 3,395 pigs were killed. [Excerpt] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 7 Jul 78 p 23 PY]

HOGS SLAUGHTERED--The slaughtering of hogs began in the municipality of Armazem in this state in an effort to control an outbreak of African swine fever. The chief of cabinet at the agriculture secretariat, however, refused to give information by alleging that he was not authorized to release any information. [Florianopolis Radio Diario de Manha in Portuguese 1515 GMT 6 Jul 78 PY]

AFRICAN SWINE FEVER FOCUSES--Three new focuses of African swine fever were confirmed yesterday: one in the municipality of Armazem in Santa Catarina; the second in Morrinhos, state of Goias; and the third one in Barra do Pirai, state of Rio de Janeiro. All told, there are now 31 confirmed focuses of this disease in the states of Rio de Janeiro, Sao Paulo, Minas Gerais, Parana, Santa Catarina and Goias. [Rio de Janeiro O GLOBO in Portuguese 1 Jul 78 p 10 PY]

NEW SWINE FEVER CASES--Brasilia--Eleven new African swine fever outbreaks were confirmed yesterday; four of them in Parana State, which up to now had managed to remain free of this disease. Two new outbreaks appeared in Rio de Janeiro, Carmo and Cordeiro. Sao Paulo State registered five new outbreaks: Araras, Avare, Bananal, Pirassununga and Vera Cruz

BRAZIL

Paulista. The information was released by Jose Alberto Lira, national secretary for agriculture and livestock. In Parana State the outbreaks are located in the following districts: Jacarezinho (two), Umuarama (one) and Venceslau Braz (one). No new reports have come from the other states and the situation remains the same in Minas Gerais, two outbreaks; and in Santa Catarina, the main swine-producing state, two suspected outbreaks in Criciuma and Armazen. At this point there are 26 confirmed outbreaks of African swine fever in the country. [Excerpts] [Rio de Janeiro O GLOBO in Portuguese 29 Jun 78 p 15 PY]

#### COLOMBIA

# GOVERNMENT ISSUES ALERT ON AFRICAN SWINE FEVER

### Bogota EL SIGLO in Spanish 17 Jun 78 p 6

[Text] In a communique issued to cattlemen, veterinarians, hog farmers, and the general public, the Colombian Agricultural-Cattle Institute (ICA) reports an outbreak of so-called African swine fever in Brazil and warns of the need for taking precautionary measures immediately to prevent this disease from reaching the country.

The ICA comments:

"The Pan-American Health Organization and the Cartagena Agreement Board have reported the presence of the disease for the first time in South America, in the State of Rio de Janeiro, Brazil, apparently due to food leftover from international flights. One thousand hogs of the infested breed were slaughtered and the state of Rio is under quarantine.

"The same sour**ces** have announced the presence of the disease on the islands of Malta and Sardinia.

International animal health authorities warn the American countries about the need for exercising strict control of dangerous imports from countries affected by African swine fever and eliminating food leftovers from ships and aircraft coming from those countries by incineration under the supervision of the competent authorities. Likewise it is necessary to increase the checking of cargo and passenger baggage to prevent the unauthorized introduction of pork or pork products into the country."

### Nature of the Disease

It is a viral disease of hogs, septicemic in nature, highly contagious, very acute and involving fever, characterized by marked hemorrhage in the internal organs, cyanosis, and with an animal mortality rate of close to 100 percent.

It is very similar to hog cholera; for this reason it is necessary to conduct laboratory tests to accurately identify it.

Warning to the Public

The ICA communique adds: "It is requested that all cattlemen, official and private veterinarians, hog farmers, and the general public be alert to the presence of this disease. Please report any suspicion of swine fever to the nearest ICA office."

The ICA is taking precautionary measures through the Animal Health Division to prevent its introduction into the country.

# STEPS TAKEN TO COUNTER AFRICAN SWINE FEVER

Buenos Aires LATIN in Spanish 1700 GMT 13 Jul 78 PA

[Text] Santo Domingo, 13 Jul (LATIN)--The executive branch has created a commission that will take charge of fighting the outbreak of African swine fever that has caused the death of over 15,000 hogs throughout the nation.

The commission was appointed in a decree issued last night by President Joaquin Balaguer. It is headed by secretary of state for the armed forces, Lt Gen Juan Rene Beauchamps Javier, and secretary of state for agriculture, Pedro Breton.

It has been reported that the outbreak began in the province of San Juan de la Maguana, in the south, and has extended to the entire region as well as to Cibao in the east.

Jose Librado Hernandez, director of cattle raising, voiced fears that the nation could be quarantined unless speedy action is taken and an end is put to the illness that is affecting the hog industry.

The official announced that the government will implement measures along the Haitian border to prevent the disease from spreading to that country. He said that he would go to Port-au-Prince with officials of the Pan American Health Office to coordinate plans with the Haitian authorities.

Hernandez said that the arrival of four experts from the U.S. Department of Agriculture is expected today. They will advise the Dominican authorities on the eradication of the outbreak of African swine fever.

Technicians suspect that the outbreak was caused by the smuggling in of sausages, who importation has been prohibited for years.

The secretariat of agriculture and the department of cattle raising announced today that a mass slaughter will be undertaken.

CSO: 5400

50

DOMINICAN REPUBLIC

# BRIEFS

SWINE FEVER OUTBREAK--Santo Domingo, 8 July (EFE)--The Secretariat of State for Agriculture has declared the situation created in the country as a result of an epidemic of African swine fever "an emergency." The health officials recommended as an emergency measure the slaughter and burning of all infected animals and those that might possibly have become contaminated. Until the epidemic outbreak is eradicated, the state body suggests imposing health security measures at all national airports and sea ports. So far several thousand pigs have died as a result of the epidemic. Many others died when they were vaccinated, causing the breeders to doubt the efficacy of the vaccines. [Text] [Madrid EFE in Spanish 1537 GMT 8 Jul 78 PA]

#### BRIEFS

CHAMPASSAK VET WORK--To promote stock raising according to the directives of the party and of the government during the last month, veterinary teams of the districts of [Meuang] Pakson, [Meuang] Soukhoum and [Meuang] Khong, of Champassak Province, sent cadres to conduct vaccination campaigns of the animals belonging to the inhabitants of these areas. They vaccinated 1,473 head of cattle, and more than 100 pigs. At the same time they cured a certain number of buffaloes, oxen and pigs suffering from infectious diseases. Furthermore they taught the elementary methods of prophylaxis applied to annimals and techniques to the population. [Text] [Vientiane BULLETIN QUOTIDIEN in French 2 Mar 78 p 7] 9018

VET WORK IN VARIOUS LOCATIONS--In order to assure draught animals and to promote stock raising in the multiethnic population, during January, the veterinary units of the Vientiane area, the districts of [Meuang] Khong Sedon (Saravane) and [Meuang] Saisettha (Attopeu) vaccinated the domestic animals of the local inhabitants. In the Vientianne region, 1,552 buffalo, 827 oxen and 3,567 pigs were vaccinated; in the district of [Meuang] Khong Sedon, 332 buffalo and oxen; and in the district of [Meuang] Saisettha, 1,974 buffalo were vaccinated. Meanwhile these veterinarians taught the local population the practice of the modern methods of stockraising. [Text] [Vientiane BULLETIN QUOTIDIEN in French 6 Mar 78 p 1]

SAYABOURY VET WORK--Since the beginning of the year veterinarians of the provinces of Vientiane and Sayaboury devoted themselves to the vaccination and the care of draught animals of various communes of the districts of [Meuang] Sayaboury, [Meuang] Thoulakhom and [Meuang] Hatsaifong. According to initial estimates more than 5,000 buffalo and oxen were vaccinated and treated, of which more than 4,300 in Thoulakhom and 27 buffalo and 1 elephant in Sayaboury. Meanwhile in Vientiane, up to now more than 12,000 animals were vaccinated, especially in the district of Hatsaifong, where the exchanges of animals are permitted. The veterinarians will then pursue their mission in the district of [Meuang] Saithani. [Text] [Vientiane BULLETIN QUOTIDIEN in French 15 Mar 78 pp 4, 5] 9018

LAOS

MEUANG CHAMPON VET WORK--During the first quarter of this year, the veterinary team of the district of [Meuang] Champon, Savannakhet Province launched vaccination campaigns of the animals belonging to the population in the district of [Meuang] Champon. They vaccinated 19,159 animals, including 7,874 oxen, 8,407 buffalo and 2,878 pigs. At the same time they taught elementary technical knowledge to the population of each district. [Text] [Vientiane BULLETIN QUOTIDIEN in French 26 Apr 78 p 3] 9018

OUDOMSAI VET WORK--During the first quarter of this year, Oudomsai provincial veterinary service sent a mobile veterinary unit to vaccinate the domestic animals of the inhabitants of the various districts. To date, more than 300 buffalo, oxen, horses and pigs were vaccinated. [Text] [Vientiane BULLETIN QUOTIDIEN in French 17 Apr 78 p 8] 9018

LUANG PRABANG VET WORK--To promote and encourage stock raising in the multinational population, during the first quarter of this year, the veterinary agents of the district of [Meuang] Chomphet, Luang Prabang Province, launched a prophylactic campaign among the animals belonging to the population, i.e. 1,576 animals were vaccinated. Meanwhile at the beginning of last March, members of the veterinary service of the district of [Meuang] Siang Ngeun devoted themselves to their professional work. They vaccinated 1,240 buffalo, oxen and pigs in the communes of [Taseng] Siang Ngoun, [Taseng] Pak Vet, [Taseng] Choum Kham, and [Taseng] Kiu Kacham. At the same time they popularized techniques in each district. [Text] [Vientiane BULLETIN QUOTIDIEN in French 22 Apr 78 pp 4, 5] 9018

PANAMA

# BRIEFS

PREVENTION OF AFRICAN SWINE FEVER--Panamanian authorities have adopted measures to prevent the spread of African swine fever to Panama, following the discovery of the illness in Brazil. Close coordination among quarantine, civil aeronautics, customs, security and airline personnel has been established to expand the preventive measures, which include lectures and the showing of films about the disease and its consequences. [Panama City Televisora Nacional in Spanish 2315 GMT 5 Jul 78 PA]

PARAGUAY

#### STEPS TAKEN TO HALT SPREAD OF SWINE FEVER

#### Border Town Measures

#### Asuncion ABC COLOR in Spanish 30 Jun 78 p 18 PY

[Summary] The Agriculture and Livestock Ministry is taking preventive measures in border towns such as Salto del Guaira, Puerto Presidente Stroessner, Pedro Juan Caballero and Encarnacion to prevent the entry of African swine fever from Brazil. Leftover food will be burned by restaurants and bars; stricter measures will be taken against the entry of live pigs and hams from Brazil; loose pigs in the streets will not be permitted, and a vaccination campaign against hog cholera will be mounted in order to be able to distinguish between it and cases of African swine fever in the event they appear.

Encarnacion Slaughter Edict

Asuncion ABC COLOR in Spanish 1 Jul 78 p 8 PY

[Summary] The municipal authorities of Encarnacion have asserted that they will issue an order that all pigs in the city and its suburbs must be slaughtered within 2 weeks, since there is danger that they will be infected with African swine fever, which is spreading in Brazil. Local customs officials have promised to tighten control at the neighboring port of Pacu Cua, where Brazilian farmers often enter bringing pigs and produce.

PARAGUAY

# BRIEFS

MEASURES AGAINST SWINE FEVER--The Agriculture and Livestock Ministry is taking preventive measures in border towns such as Salto del Guaira, Puerto Presidente Stroessner, Pedro Juan Caballero and Encarnacion to prevent the entry of African swine fever from Brazil. Leftover food will be burned by restaurants and bars; stricter measures will be taken against the entry of live pigs and hams from Brazil; loose pigs in the streets will not be permitted; and a vaccination campaign against hog cholera will be mounted in order to be able to distinguish between it and cases of African swine fever in case they should appear. [Asuncion ABC Color in Spanish 30 Jun 78 p 18 PY]

SWINE FEVER CONTROL--Encarnacion--The municipal authorities of Encarnacion have asserted that they will issue an order that all pigs in the city and its suburbs must be slaughtered within 2 weeks, because there is danger that they will be infected with African swine fever, which is spreading in Brazil. Local customs officials have promised to tighten control at the neighboring port of Pacu Cua, where Brazilian farmers often enter, bringing pigs and produce. [Asuncion ABC Color in Spanish 1 Jul 78 p 8 PY]

URUGUAY

# BRIEFS

IMPORTS OF UNCERTIFIED PORK BANNED--Montevideo--The Uruguayan Government has banned the import of hogs from countries experiencing outbreaks of African swine disease. The ban is applicable to pork products which have not been adequately certified. [Text] [Porto Alegre Radio Guaiba in Portuguese 2150 GMT 11 Jul 78 PY]

VENEZUELA

# BRIEFS

SPREAD OF AFRICAN SWINE FEVER--Agriculture Minister Gustavo Pinto has reported that the outbreaks of African swine fever at the Brazilian border are quite serious and that the disease has spread to the Dominican Republic. Pinto reported that Venezuela has banned travelers from bringing in products derived from pork, particularly from countries affected by the disease. [Caracas Radio Continente Network in Spanish 1000 GMT 8 Jul 78 PA]

#### INTER-AMERICAN AFFAIRS

### BRIEFS

BANANA PLAGUE--A new disease called the black sigatoca [sigatoca negra] which appeared in banana plantations in Honduras has now been reported in Guatemala and Belize, although no cases have been reported so far in Nicaragua, Costa Rica, or Panama. The disease, caused by a fungus, is resistant to chemicals. Specialists of the union of banana exporting countries are studying the disease in the hope of developing a suitable fungicide to control it. [San Jose Cadena de Emisoras Columbia in Spanish 1220 GMT 29 Jun 78 PA] [Sercano Network]

# STRANGE INSECTS DESTROYING CROPS

# Accra DAILY GRAPHIC in English 17 Jun 78 p 4

[Text] FARMERS in the Western sector of the Upper Region have appealed to the Ministry of Agriculture to help combat strange insects which are destroying crops in the area.

This was disclosed at Wa by Mr Francis Dery, Wa District Agricultural Officer, when Mr J. K. Owusu, the newly appointed Principal Secretary in charge of the administration of the western sector of the Upper Region called at the district agricultural offices to meet the staff.

He said the pests, which attack main cereal crops especially maize, guinea corn, and millet, have been destroying a considerable number of farms in the area.

Mr Dery disclosed that samples of the insects had been sent to Bolgatanga for identification and possible remedial action.

He said the insects, greenish in colour and resembling the carter-pillar, attack mostly cereals whose colour eventually change from brownish into whitish.

He feared that if possible measures were not taken immediately to control the insects, there would not only be poor harvest this season but farmers would incur great financial losses. At the Wa divisional po-

At the Wa divisional police headquarters, Mr H. M. B. Lartey, Assistant Commissioner of Police in charge of Wa District, told Mr Owusu that three new police stations would soon be opened at Han, Lambussie and Busie.

### LOCUST CONTROL STEPS IN RAJASTHAN

Madras THE HINDU in English 29 Jun 78 p 7

[Text] Jaipur, June 28--Following reports of locust swarms in the desert region of Western Rajasthan and the chances of their emergence in the agriculture areas, the State Government has instructed all district Collectors to undertaken locust control measures immediately.

Supply of the implements and free pesticides has also been arranged. The Central Locust Control Organization is launching locust control measures on a wide scale.--FOC.

PTI and UNI report:

Locust movement was also reported from several villages of Srisa district on Tuesday. The swarm was spread over three-square kilometre area.

The Punjab Government has rushed two aircraft from Pinjore for spraying pesticides to combat the menace.

The Deputy Commissioner of Sirsa has been asked to invoke the East Punjab Agricultural Pests, Diseases and Noxious Weeds Act, 1949 to render help in locust control work. This has been done to mobilise all able-bodied males, above 14, within the radius of eight km. of the area affected by locusts.

A locust swarm, about 1.6 km, long and over half km, wide is heading towards Punjab from Hissar, according to district authorities in Bhatinda.

LOCUST THREAT IN GUJARAT--Ahmedabad, June 21--Locust were posing a fresh danger in Saurashtra areas in spite of the measures taken by Gujarat. The State Agriculture Minister, Mr Keshubhai Patel, told reporters at Gandhinagar this afternoon that locusts in the affected areas had begun laying eggs. The Minister said six units, including one from the Centre, had been sent to the affected areas. [Text] [Calcutta THE STATESMAN in English 22 Jun 78 p 7]

LOCUST CONTROL MEASURES

# Nairobi DAILY NATION in English 3 Jul 78 p 5

[Text]

THE Government is getting ready for locusts in case the swarms invading neighbouring Ethiopia cross into Kenya.

This was said by Mr. J. Adamba, chairman of an inter-ministerial team appointed by the Government to prepare for locust control lest they move into Kerya.

they move into Kerya. Mr. Adamba who visited Marsabit recently said the team would open control stations at Mandera, Garissa, Wajir, Marsabit and Lodwar.

Mr. Adamba, who was accompanied by other members of the team, said that an invasion might occur towards the end of the year. He said the people would be given equipment and insecticides so that they were ready for any eventuality.

The team said the locusts which had been seen at several places in the district were tree locusts and not desert locusts. Showing wanarichi samples of different kinds of locusts, the team said the samples would be on display at every con-

The DC Mr. Ingonga assured the team that everything possible would be done to educate wananchi on the dangers of locusts through barazas.

KENYA

### DESERT LOCUST LOOKOUT ESTABLISHED

# Nairobi DAILY NATION in English 7 Jul 78 p 5

# [Text]

FOLLOWING an invasion of Somalia and Ethiopia by swarms of desert locusts, all Government personnel and wananchi in Marsabit District have been urged to report any sighting of locusts at once.

Anyone who spotted them should report at once to the DC's office who would immediately relay the word to the President's Office and the Ministry of Agriculture for action.

In a circular to all departmental heads and district officers, the DC urged people of the area to be on the lookout for desert locusts.

The DC's circular followed a telegram from the President's Office to the DC saying heavy swarms of desert locusts had been reported in Somalia and Ethiopia.

The telegram directed that all Government personnel be involved in trace and reporting these locusts, the DC said.

--KNA

# PEOPLE'S REPUBLIC OF CHINA

#### BRIEFS

INNER MONGOLIA FARM PEST--On the evening of 11 June, the agriculture, animal husbandry, forestry and water conservation offices of the Inner Mongolia revolutionary committee held an emergency telephone conference, calling on all localities to quickly take measures to bring wheat stem flies under control. A responsible person of the regional agriculture office addressed the conference. He reported that wheat stem flies have appeared in many localities and that an emergency circular has been issued by the regional revolutionary committee on 29 May to deal with this problem. [Huhehot Inner Mongolia Regional Service in Mandarin 1100 GMT 12 Jun 78 OW]

INNER MONGOLIA PEST CONTROL--Wulanchapu league, Inner Mongolia, has been waging a people's battle to eliminate pests and protect seedlings. By the end of May, the league had applied pesticides to its 1 million mou of wheat. As a result, the pests are now under effective control. [Huhehot Inner Mongolia Regional Service in Mandarin 1100 GMT 14 Jun 78 OW]

65

### BRIEFS

COLORADO BEETLE IN LITHUANIA--The Plant Protection Service announces that the Colorado beetle has appeared in the Alitus, Prienai, Lazdijai and other southern rayons of the Lithuanian republic. There are a large number of beetles in the smaller plots where the young potato plants are growing and they have started to lay their eggs. Agricultural workers are urged to organize vacationing students to help with destroying the eggs. In larger areas where the eggs cannot be collected by hand, they should be sprayed. V. Slauta, head of the Republic Agricultural Plant Disease and Pest Prognostication and Diagnosis Laboratory. [Vilnius VALSTIECIU LAIKRASTIS in Lithuanian 17 Jun 78 p 1]

CSO: 1809

USSR

VIETNAM

# NAM NINH DISTRICT TRANSPLANTS RICE, FIGHTS RICE DISEASE

Hanoi NHAN DAN in Vietnamese 16 May 78 p 2

[Article by Duc Hniem of Agricultural Committee, Nam Ninh District, Ha Nam Ninh Province: "Nam Ninh District Saves Over 1,000 Hectares of Rice Affected by Root Suffocation Disease"]

[Text] This fifth month-spring season, Nam Ninh District in Ha Nam Ninh Province transplanted 14,080 hectares of rice, fulfilling 104.2 percent of area plan quotas with Nong Nghiep 8 rice transplanted over 60 percent of the area; dwarf Tran Chau variety over 20.4 percent of the area; VN variety over 16.9 percent of the area and Nong Nghiep 2, glutinous rice crossbred and No 314 varieties over the remainder of the area.

Recently, more than 2,000 hectares of rice throughout the district were affected by root suffocation disease. The district party committee and the district people's committee assigned more than 200 cadres and students to join farmers in 36 cooperatives in treating the diseased rice. To date, Nam Ninh District has saved nearly all the area affected by root suffocation disease and the rice has returned to normal.

Along with treating the diseased rice, Nam Ninh District fought the drought for more than 5,000 hectares of rice and sprayed insecticide over 1,750 hectares of rice and more than 800 hectares of peanuts and sweet potatoes.

VIETNAM

#### BRIEFS

BEN TRE INSECT CONTROL--In Ben Tre province, white bugs are threatening hundreds of hectares of summer-fall rice in (An Thanh), (Dong Phuoc Hoi) and (Thanh An) villages of Mo Cay district. The local peasants have adopted many measures to eliminate them. As a result, they have saved these areas from the blight. [Ho Chi Minh City Domestic Service in Vietnamese 0200 GMT 21 Jun 78 BK]

BROWN FLY ERADICATION--From 10 to 30 percent of the rice areas in Binh Chanh and Cu Chi districts in the Suburbs of Ho Chi Minh City have been affected by brown flies. Brown flies have also appeared on some early transplanted rice areas and 10th-month seedling beds. The city agricultural service has opened a training course for nearly 80 students to learn how to kill brown flies so that they can go to various districts to guide and assist peasants in eradicating and controlling them. It has also sent 200 sprayers, 6,000 kg of insecticide and 11,200 bottles of liquid insecticide to various districts. [Ho Chi Minh City Domestic Service in Vietnamese 0200 GMT 28 Jun 78 BK]

PROVINCES KILL FLIES--Brown flies have recently appeared on tens of thousands of hectares of rice plants in Ben Tre, Cuu Long, Tien Giang, Dong Thap, Song Be, Tay Ninh and Long An provinces. These provinces have adopted measures to kill brown flies by closely implementing the sevenpoint directive of the agriculture ministry and have succeeded in protecting thousands of hectares of rice. [Ho Chi Minh City Domestic Service in Vietnamese 0500 GMT 29 Jun 78 BK]

CSO: 5400

END