

(c)

	Commodity	Quantity (in mt. tonnes)	Value (Rs.)
I. From Cooperatives	Boiled rice	20.00	31,000.00
	Raw rice	16.00	35,200.00
	Tilseeds	114.75	5,56,057.00
	Chillies	6.623	43,711.88
II. From Trade	Wheat	4.453	9,690.21

(d) No, Sir. NAFED has a standing Business Committee which lays down policies and provides guidelines in matters relating to purchases, sales, etc.

Language used in Degree/Diploma of Universities

2789. SHRI N. DENNIS: Will the Minister of EDUCATION AND SOCIAL WELFARE be pleased to state:

(a) whether the Degree/Diplomas of the Universities in Tamil Nadu are to be issued in local languages; and

(b) if so, whether the University Grants Commission has approved this step?

THE MINISTER OF EDUCATION AND SOCIAL WELFARE (SHRI S. B. CHAVAN): (a) The Syndicate of the Madras University is reported to have accepted a proposal to issue degree certificates in both Tamil and English, using a bilingual format.

(b) The University Grants Commission's approval has neither been sought for the purpose, nor is such approval necessary.

Damage to Mango Trees due to Disease

2790. SHRI UTTAMBHAI H. PATEL: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government are aware that during the last three years,

Union Territory of Dadra Nagar Haveli and some other parts of the country, mangoes trees have been spoiled due to various tree diseases and as such the production of mangoes have been spoiled worth crores of rupees;

(b) if so, the details thereof and how much loss incurred during the last three years (year-wise);

(c) what steps the Central Government have taken in this regard so as to cure the said diseases;

(d) whether the Government or any other agencies have tried or propose to try to procure any medicine and whether any research work have been done or will be done for its remedy; and

(e) if so, the details thereof and if not, the reasons thereby?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND RURAL RECONSTRUCTION (SHRI R. V. SWAMINATHAN): (a) and (b). Sir, the pests and diseases on mango crop occurred during the last three years in Gujarat and some other parts of the country. Precise estimate of loss due to the pest/disease problem alone is not readily available. Gujarat reported a loss of 52,500 tonnes in 1978 and 63,000 tonnes in 1979. 1980 was a normal season.

(c) Plant Protection measures are undertaken by the State Governments and Administrations, to Union Territories. The Central Government sanctions release of Central subsidy for the control of mango hopper under the Centrally Sponsored Scheme of "Control of Eradication of Pests and Diseases including Weed control in Endemic Area" on receipt of suitable

proposals from the State Governments/Union Territories.

(d) and (e) Research findings from Indian Council of Agricultural Research, Agricultural Universities, against various pests/diseases of mango and the required medicines are available in the country. Details are as under:—

(1) Some of the important pests and measures recommended:—

Pests

1. Mango Hoppers
Idiocerus clypealis Leth
I. atkinseni Leth.
I. niveosparsus Leth.
Spraying carbaryl 0.15% or malathion 0.05% or Fenitrothion 0.02% @ 10-20 litres per grafted tree and 20-40 litres per seedling tree
2. Mango mealy bug
Dresicha mangiferae Green
(i) Putting up sticky bands round main stems before the nymph hatch.
(ii) Spraying with 0.05% malathion or 0.05% parathion @ 10-25 litres per grafted tree and 20-40 litres per seedling tree.
3. Mango scale insects *Aspidiotus destructor* Sign. Spraying 0.05% diazapon or 0.05%
Pulvinaria polygonata Ckll. *P. psidii* Mask. *Parlatoria* methyl parathion or 0.03% malathion
pergandii Comst. *Lepidosaphes glouerii* (Pack.) or parathion @ 10-15 litres per grafted tree and 20-40 litres per seedling tree.
4. Mango psylla *Apsylla cistellata* Buckt. Collecting and destroying galls.
5. Bark eating caterpillar *Indarbela quadrinotata* Wlk Plug the borer holes with cotton soaked with either Kerosene oil or petrol or ED/CT mixture, and then plaster the holes with mud.
6. Mango fruit flies *Dacus dorsalis* Hendel *D. Zonatus* (Saund)
(1) Destroying affected fruits.
(2) Spraying 0.25% DDT on the entire vegetation and hedges in the garden with a view to reduce fruit fly adult population.
7. Mango leaf gall fly *Procontarinia matteiana* Kieff & Cecoeni Collecting and destroying affected leaves.
8. Mangostem borers *Bactocera rufimaculata* De Geer *B. Bubus* L.
(1) Remove the fross and inject 0.2% Femitrothion or 0.2% methyl parathion and plug the holes with mud.
(2) Fumigating borer holes with petrol or carben disulphide.
9. Leaf cutting weevil *deporaus marginatus* Pasc. Spraying with 0.2% DDT @ 10-20 litres per tree.
10. Nut weevils *Sterenochetus mangiferae* Fb. *S. gravis* Fb. Do.
11. Red ant *Oecophylla smaraglina* Fb. Burning and destroying the nest or spraying 0.25% BHC on the nest.
12. Termites *Neotermes* sp. *Odonto termobesius* Ramb. Mixing 5% aldrin or chlordane dust in the soil around the tree.

Diseases

1. Powdery mildew *Oidium mangiferae* Berthlet
 Dusting with fine sulphur @ 0.5-1.5 kg. per tree, prior to flowering and repeating once or twice according to requirement.
 Or
 Benomyl 50% WP 3 gm per 10 litres water per tree at 15 days' interval as the symptoms appear; Dinocap 46% EC 5 ml per 10 litres water per tree at 10 days' interval when panicle format, flowering and setting and Tridemorph 75% E/C 3.75 ml to 5 ml per 10 litres water per tree at 10-15 days' interval at usual times of diseases.
 2. Black tip (physiological)
 Spraying plants in fruiting stage 3 or 4 times with a solution of 3 kg. borax in 500 litres of water.
 3. Anthracnose *Collatrichum ql oesporioides* (Pensig) Saoc.
 Removing the affected parts and spraying the trees with Bordesux mixture 3:3:50 or 0.3 % of any other copper fungicide (50% copper) @ 9.22.5 litres per grafted trees and 25-50 litres per seedling tree.
 4. Malformation (Complex : Yet undetermined fungus, mite virus and other factors)
 Pruning followed by a prophylactic spray of a mixture of a fungicide plus miticide at interval of 10-12 days will help gradually in controlling the spread of the diseases.
 5. Scab *Elsinoe mangiferae* Bitane & Zenkins *Sphaeloma mangiferae* Bitane & Jenkins |
 Spraying with Bordeaux mixture 5:5:50 repeatedly.
 6. Pinkdisease *Botryobasidium salmonicolor* Berk & Br. *Pellicularia salmonicolor* (Berk & Br.) Das-tur *Corticium salmonicolor* Berk & Br.
 The bark is to be scraped lightly and painted with Bordeaux paste (1:1:30).
 7. Red rust (algal disease) *Cephaleuros mycoidea* Karst *C. parasiticus* *C. Virescens* Kunze
 Spraying of Bordeaux mixture 5:5:50.
- (2) Spray schedule recommended by Gujarat Agricultural University for the control of Pest/Diseases of Mango Crop:—

Time	Pesticides	Quantity to be added in 200l of water for spray solution
October	Bordaux Mixt.	1600 gms lime 1600 gms CuSO ₄
Nov. 1st Week	Fenitrothion + Bor.Mix	200 ml. of 50 EC
Nov. 4th week	Endosulfan + Zirum	420 ml. of 50 EC
December	Endosulfan + Kerathane	420 ml. 250 ml.
January	Carbaryl 50 W.P. + Bavistin 50 W.P.	800 gms. 70 gms.
February	Carbaryl 50 W.P. + Zineb	800 gms. 300 gms.
March	Endsulfan 35 cc + Maneb	420 ml. 300 gms.
April	Monocrotophos + Meneb	200 ml. 300 gms.