

Chevitisompu; Chinnamundabolalo; Chipurubayyahunda;
Chulakanamahipali; Co. 1.

Dasaradhilu; Dhanyarasulu; Dusisannam.

Garudavahanalu; G. E. B. 24; Gudarisanalu; Gummasari;
Gunupuramrannalu.

Hemasannalu.

Kalahandisannalu; Kanakaratanalu; Kanakasompu, 9, 14;
Kevitochompa; Konamani, 14, 15, 16; Kondakurangi; Kosakad-
dilu; Kosisompu.

Maharajabhogam; Mahipali; Molakolakulu; Muttubayya-
hunda; Muthusamba; Mundlavari.

Naguthalisannalu.

Palagummasari 4, 7; Panianlu; Pedda akkullu; Pedda
atragada; Peshanam; Prayaga; Punasa akkullu, 3, 5, 9; Punasa-
konamani, 1, 2.

Radhaprayaga; Ramagarudamsamba; Ratnachudi 5, 7, 8, 9,
11, 15; Red sirumani.

Sanna atragada; Sanna bayyahunda; Sanna akkullu; Sanna-
vari; Sorimundabolalo; Srikrishabhogam; Sunkisannalu; Sunna-
puvvulu; Suvarnamuthilu.

Tellaradhaprayaga; Tobarasulu; Turpuranna akkullu.

Vankelu; Vavilapadusannalu; Vajjhanam.

Yerrabakkalu.

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Fungus diseases of crops in the Madras Presidency.

(Concluded from M. A. S. U. Journal Vol. . . .)

SUGAR-CANE (*Saccharum officinarum*.)

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|-------------|--|-------------------------|------------------------------|
| 1. Red-rot. | <i>Colletotrichum</i>
<i>falcatum</i> Went. | May & June
November. | Throughout
the Presidency |
|-------------|--|-------------------------|------------------------------|

Transversely elongated white patches with the reddening of pith are seen when a cane is split open. The cane rots and turns sour giving rotti pineapple smell.

2. Smut. *Ustilago Sacchari* August Throughout
Rabenh. February the Presidency
December
October.

The central shoot or one or more side shoots get converted into a long whip like dusty black structure which is at first enclosed in a thin papery membrane.

3. Ring-spot. *Leptosphaeria*
Sacchari. Van. August. Samalkota.
Breda.

Ring like spots on the leaves with a straw coloured centre dotted with tiny black dots arranged in rows and with a reddish purple margin.

FRUIT CROPS:—MANGO (*Mangifera indica*.)

1. Sooty mould. *Capnodium mangiferae*. November. Malabar.

A dense black sooty crust appears particularly on the upper surface of leaves.

2. Grey blight. *Pestalozzia funerea* December Coimbatore.
(var *magifera* Sacc. March. Salem.

Grey spots or extended dry patches on the leaves confined to the edges and showing minute black dots on them.

3. Mildew. *Oidium* sp. March Salem.
April Coimbatore
June. S. Kanara.

Ashy white powdery growth on leaves, twigs and flowers.

4. Red-rust. *Cephaleuros parasiticus* Karst
virescens Karst. ...

Orange yellow roughly circular raised patches on the upper surface of the leaves and young twigs.

ORANGE—*Citrus*.

1. Die-back. *Colletotrichum gloeosporoides*. Penz June Tinnevelly
July Kistna
Coimbatore.

Drying up of twigs from the tip and showing black dot like pustule on the bark presenting the appearance of the branching of horns of a stag.

2. Mildew *Oidium sp.* June Nilgiris
Coorg.
Ashy powdery growth on leaves and twigs.
3. Sooty mould *Meliola Sp.* Coorg.
Dense sooty black crust prominently on the upper surface of the leaves.
4. Scab. October Salem
November. Coimbatore
Tanjore.
Brownish corky eruptions on fruits and twigs.

GRAPE-VINE.—(*Vitis vinifera*).

1. Mildew *Oidium Tuckeri*
Berk. February Coimbatore
January Salem
February Madura
do. Coimbatore.
A grey powdery growth on leaves and fruits. Fruits crack, rot and become useless.
2. Anthracnose *Gloeosporium ampelophagum*. Pass.
Sacc. August Salem
September Madura
April & Bellary
October.
Brown slightly sunken patches with raised borders resembling the eye of a pigeon occur in all green parts especially on fruits causing them to rot.
3. Leaf blight *Cercospora viticola* August & Madura
Ces and Sacc October. Coimbatore
Irregular brown spots on the lower surface of leaves
4. Downy - *Plasmopara viticola*. January Salem
Mildew. Berk & Curt. February Kistna
November Coimbatore.
Pale yellow green patches on the upper surface of leaves.
5. Rust. *Uredo vitis*
(Schw) Fekl. November Coimbatore.
Small powdery pustules on leaves.

PLANTAIN.—*Musa sp.*

1. Fruit rot. *Goleosporium Musarum*. Cooke. et. September Godavari Mass.

Pale grey spots appear on the fruits causing them to rot.

2. Leaf spot. *Macrophoma Musae* (Cke.) Berk. Vag. January & February April. Salem Trichy.

Dry patches on the leaves with small black pustules on them.

3. Wilt *Fusarium sp.* January Madura.

Outer leaves turn yellow and wilt and the leaf stalks break. Rotting of the pseudo-stem sets in and the plant dies. The fruits ripen prematurely and unevenly and are rendered unmarketable.

POMEGRANATE—*Punica granatum.*

1. Blossom-end-rot *Colletotrichum sp.* November February. Coimbatore.

The calyx cup blackens, rots and rot travels into the fruit, causing complete or partial damage to the fruit.

FIGS.—(*Ficus carica*)

1. Rust. *Uredo Fiei* Cast. September July, March December. Ootacamund Coimbatore

Numerous minute yellowish brown pustules on the lower surface of leaves.

GUAVA—(*Psidium guava.*)

1. Sooty mould *Capnodium.* February. Coimbatore.

A dense sooty crust on the upper surface of leaves.

1. Fruit-rot. *Pestalozzia psidii.* Nilgiris.

Brown corky eruptions on the fruits; the fruits crack and dry up.

PEACH—(*Prunus peisica.*)

1. Leaf curl. *Exeascus deformans.* March & May. Ooty and Berk. Nilgiris.

The leaves become thickened turn yellow or less rosy and get wasted.

2. Rust. *Puccinia Prunipersicae*. Pers. January and March. Coimbatore Ooty.

The lower surface of the leaves gets dotted with small round powdery yellowish-brown pustules.

MULBERRY.

1. Mildew. *Phyllactinia corylea* Merst. January and March. Coimbatore Ooty.

The lower surface of leaves becomes covered with a silvery whitish coat at first and tiny black spots appear later on.

APPLE—(*Pyrus Malus*).

1. Mildew. *Oidium*. March Ootacamund
Whitish powdery growth on the leaves and young shoots.
2. Pink disease. *Corticium Salmonicolor* B & Br. November. Ootacamund

PLANTER'S CROPS. Rubber—(*Hevea Brasiliensis*)

1. Leaf fall. *Phytophthora Meadii* McRae. June, August, September. Travancore Cochin.

Leaves fall off from the branches leaving the bunches bare and fruits to rot.

2. Leaf blight *Helminthosporium Heveae* January May April January. Bangalore Mundakayam Trivandrum Travancore. Cochin.

Minute purple spots are formed on leaves which later on become white semi transparent.

3. Pink disease *Corticium salmomicolor* December. Malabar. Cochin.

Pink encrustation appears on the surface of the bark which rots and dries up and splits away from the wood causing the death of branches.

4. Die-back. *Botryodiplodia Theobromae* January. March. May. Travancore.

Branches die back from the tip resulting in the death of the tree.

5. Brown root disease. *Hymenochaete noxia*. Berk.

The attacked plant dies gradually. The roots are encrusted with a mass of sand and small stones bound together by the fungus

6. Brown bast.

Physiological.

TEA.—(*Camellia Thea*).

1. Grey Blight. *Pestalozzia Theae* August. Bangalore.
Wynaad.
Kerala estates,
Malabar.
Travancore.

Grey patches on the surface of leaves causing the leaves to dry up.

2. Brown blight *Collectotrichum* November. Wynaad.
Camelliae October. Anamalais.

Brown spots on the surface marked by concentric zones. The diseased portions rupture and fall out leaving large holes.

3. Leaf-spot. *Cercospora Theae* February Kannan-
August Deyan hills
Kurdura
estate
Travancore.

Reddish brown spots which dry up and fall off leaving holes.

4. Root-rot. *Rosellinia sp.* February. Travancore
high range

Plants die in patches, leaves wither, turn brown and dry up.

5. Brown root-disease. *Hymenochaetae noxia*. March Anamalai,
Coimbatore.

The leaves wither and the bush roots are encrusted with a mass of sand and small stones bound together by the fungus.

6. Red-rust. *Gephaleuros* August Mundakayam
mycoidea. Coimbatore.

Found on leaves and stem in red raised up patches.

7. Blister-blight *Exobasidium vexans*. August. Assam
Darjeeling.

Blister like swellings found on the surface of leaves,

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|----------|----------------------------|--------------------|-------------------------------------|
| 1. Rust. | <i>Hemeleia vestatrix.</i> | March
September | Anamalai
S. Malabar.
Nilgiris |
|----------|----------------------------|--------------------|-------------------------------------|

Orange coloured spots on the under surface with corresponding brownish patch on the upper surface.

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| 2. Black rot. | <i>Pellicularia</i>
<i>Koleroga</i> | March
September | Anamalai.
Coorg. |
|---------------|--|--------------------|---------------------|

Leaves covered on the under surface with greyish white membranous film. The leaves turn black get detached and hang suspended by fungus filaments.

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|-----------------|-------------------|-----------|----------|
| 3. Sooty mould. | <i>Capnodium.</i> | November. | Malabar. |
|-----------------|-------------------|-----------|----------|

The leaves and twigs are covered over with a dense black crust made up of dark brown hyphae.

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|------------------|--|--------|------------|
| 4. Pink disease. | <i>Corticium sal-</i>
<i>monicolor.</i> | August | Bangalore. |
|------------------|--|--------|------------|

Rose coloured crusts are found on the surface of twigs and stem. The leaves wither but do not drop off. The bark splits and peels off. Greyish white spots with reddish brown margin on the leaves and berries causing them to turn black, shrivel and drop down.

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| 5. Leaf-spot. | <i>Cercospora</i>
<i>coffeicola.</i> | July. | Kotagiri. |
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A Note on Lemons at Kadayam—Tinnevelly District.

BY T. V. AYYASAMI AYYAR.

The village—Kadayam—is about a mile from the Kilakadayam Railway station. It is famous for the cultivation of lemons. Every year lemons to the value of over Rs. 10,000 are produced here, and also sent as far as Trivandrum in the west and Madras in the north east; it is the lemon of this place that is highly appreciated by consumers. For successful cultivation three important factors are necessary.

1. Rich surface soil with red gravelly sub soil. By rich soil is meant well tilled soil containing plant food.

2. Regular water supply.

3. Application of vegetable compost chiefly “kolingi compost.