

## Appendix B

## Knowledge structure of *TEADISEASE*

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CLASS : DOMAIN

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OBJECT : Plantation status

ATTRIBUTE : Matured

Young

Clonal nursery

Seed nursery

Old

To be uprooted

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OBJECT : Soil status

ATTRIBUTE : Heavy

Sandy

Sandy loam

Others

Not known

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OBJECT: Shade status

ATTRIBUTE : Dense

Adequate

Thin

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OBJECT: Average humidity

ATTRIBUTE : High

Moderate

Low

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OBJECT: Weekly Av. temperature

ATTRIBUTE : High

Moderate

Low

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OBJECT: Weekly Av. rainfall

ATTRIBUTE : High

Medium

Low

OBJECT: Bush appearance

ATTRIBUTE : Sick or wilting

Whole bush dies suddenly

Part of bush dies suddenly

Bush dies gradually

Part of bush dies gradually

Normal

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OBJECT: Leaf appearance

ATTRIBUTE : Curl or bended over

Withered leaf remain attached

Top leaves pale yellow

Green leaves dropping

Leaves flaccid pale and drops

Spots and patch on surfaces

Thread or film or lump on surfaces

Dropped leaves attached together

Normal

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OBJECT: Leaf colour

ATTRIBUTE : Yellowish brown

Yellowish brown and grey

Yellowish

Reddish

Bright reddish brown

Green to reddish

Pale

Normal

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OBJECT: Primary findings on stem

ATTRIBUTE : Stem die back

Stem breaks off

Threads of mycelium

White powdery patches

Lumps or cushions

Tiny globules

Smooth velvety felts

Lesions

Encrustation

Ear like bracket

Normal

OBJECT: Primary findings on collar region

ATTRIBUTE : Mycelium growth

Encrustation

Bracket like growth

Shot or thorn like growth

Normal

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OBJECT: Findings for Nursery plants

ATTRIBUTE : Rotting of the collar zone

Black dots over the affected bark

Leaves look yellowish

Plant unhealthy

Suddenly wilt and die

Lower leaves drop

Callus growth on collar zone

Wood brown or bluish when knife scraped

Thin black lines on wood when knife scraped

Black rings when knife scraped

Normal

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OBJECT: Root surface

ATTRIBUTE : White cushion or lumps

Yellowish brown cushions

Black cushions or lumps

Greyish black cushions

Cream to brown mycelium

Black cobwebby cords of mycelium

Greyish black cobwebby cords of mycelium

Purplish brown cords of mycelium

White to chocolate cords of mycelium

White to black cords of mycelium

Orange red pins with white heads

Hairy soot like appearance

Normal

OBJECT: Collar observations

ATTRIBUTE : Black thorn

Black grains of shot

Red to black flask\_like bodies

Hairy shoots

Normal

OBJECT: Root bark peeled away

ATTRIBUTE : White or brown mycelium

Dull white silky fan like mycelium

White star like threads of mycelium

Black star like threads of mycelium

Purplish black thick threads of mycelium

White thick threads of mycelium

Orange thick threads of mycelium

Irregular dots and dashes

Black dots on wood

Yellowish brown film on wood

Thin white film

Normal

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OBJECT: Root colour

ATTRIBUTE : Mottled brown and black

Mottled red black and white

Violet

Ink black

Not clear

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OBJECT: Knife cut on root

ATTRIBUTE : Honey\_comb structure

Dark black band with normal wood

Black dots and dashes

Dark band and net of light brown lines

Pink to pinkish brown wood

Purplish wood

Inky black wood

Blue black wood

Black dots

Yellowish brown lines

Yellowish brown mycelium

Soft and sodden wood

Normal

OBJECT: Secondary findings 1 on stem

ATTRIBUTE : Pinkish lumps or pinhead cushions

Crimson tiny globules in cracks

Pinkish lumps with cream or rosy tiny globules

Yellowish brown cushions

Brown corky encrustation dotted with pores

Chalky white twine like branching threads

Silky white film of mycelium

Brown soft mycelium

Rosy pink crust

Brownish black patches encircled by swollen ring

Small swelling with thorny black pointed beak

Longitudinal dead lesions with ring of callus

Soft flesh coloured gelatinous ear like bracket

Brick red or orange patch

Purplish black lesions

Normal

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OBJECT: Secondary findings 2 on stem

ATTRIBUTE : White velvety lumps or felts of mycelium

Yellowish velvety brown lumps or felts of mycelium

Purplish velvety brown lumps or felts of mycelium

Grey velvety lumps or felts of mycelium

Bluish grey lumps or felts of mycelium

Black wooly covering on stem

Small isolated yellowish red lumps

Small isolated orange red lumps

Small isolated pinkish red lumps

Normal

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OBJECT: Spot on upper leaf

ATTRIBUTE : Yellowish

Greyish

Greyish white

Concave oily

No spots

OBJECT: Colour of upper patches

ATTRIBUTE : Brown

- Brown and grey
  - Reddish brown
  - Light brown
  - Chocolate brown
  - Black when wet
  - Black
  - Yellowish
  - No patches
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OBJECT: Upper patch symptom

ATTRIBUTE : Patches with raised wavy margin

- Zonated towards edge with watery ring
  - Greyish patch with black dots
  - Circular or oval with concentric zonation
  - Black pustules in concentric lines
  - Patches with greyish centered
  - Patch with swollen and purplish margin
  - None
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OBJECT: Upper leaf film

ATTRIBUTE : Black and wooly

- Black and powdery
  - Film peels off when dry
  - No film
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OBJECT: Lower leaf spot

ATTRIBUTE : White and powdery

- Convex white and powdery
- Convex pink and powdery
- No spot

OBJECT: Lower leaf patches

ATTRIBUTE : Brown

- Reddish brown
- Light brown
- Greyish white
- Grey with black dots
- White and dusted
- Reddish brown with white tufts
- No patch

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OBJECT: Film or lumps on lower surface

ATTRIBUTE : Wooly and pinkish white

- Wooly and cream
- Wooly and brown
- Fan like film
- Chalk white branching threads
- Yellowish red lumps
- Orange red lumps
- Pinkish red lumps
- No film or lump

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OBJECT: Collar mycelium

ATTRIBUTE : Velvety purplish brown

- Wooly and greyish
- Soft and brown
- Velvety chocolate
- Greyish cushion
- Black cushions
- No mycelium

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OBJECT: Collar encrustation

ATTRIBUTE : Dull grey corky

- Greenish grey
- Black
- White
- Yellow corky
- Fawn coloured corky
- Charcoal like black
- Surface undulated
- Surface like black paint
- None