









# BRASSICAS

Includes cabbages, cauliflower, broccoli, kale, mustards

Beet cyst nematode	Black leg (Phoma leaf spot)	Clubroot	Damping off/ Wirestem
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Fusarium wilt (yellows)	Root-knot nematode	Sclerotinia rot	Verticillium wilt
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# BEET CYST NEMATODE

*Heterodera schachtii*

## WHAT SHOULD I LOOK FOR?



Stunted growth and yellowing of aboveground plant

DAFF Archive, Bugwood.org



Increase in fine "whisker-like" roots with small white spherical cysts

L. Tesoriero, Crop Doc Consulting

### WHERE WILL I SEE SYMPTOMS?



### FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



WARM

• 21-27°C In warm conditions can have up to five generations in one growing season.



PLANT STRESS

• Seedlings particularly susceptible

### DISTRIBUTION IN THE FIELD

#### LARGE AREAS

Large areas of infected plants clearly visible



### HOW DOES IT SPREAD?



MOVEMENT OF CONTAMINATED SOIL



FREE WATER














CONTAMINATED PLANT DEBRIS

**SURVIVAL TIME WITHOUT HOST**

More than 10 years

## HOW DO I CONTROL IT?

<b>FALLOW/COVER CROP</b>	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 
	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>PLANT TRAP CROPS</b></p> <p>Plant nematode resistant crops that prevent reproduction</p> 	<ul style="list-style-type: none"> <li>• Select fields that have not grown a host crop in at least 5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Not always effective as cysts can be difficult to penetrate. Check APVMA or Infopest website for registered products</li> </ul>	<ul style="list-style-type: none"> <li>• Use non-brassica crops e.g. biofumigant sorghum varieties</li> </ul>	
<b>PLANTING PREPARATION</b>	<p><b>CROP SELECTION</b></p> <p>Choose a resistant/less susceptible cultivar</p> 	<p><b>ADJUST DATE</b></p> <p>Adjust planting/harvest date to reduce infection risk</p> 	<p><b>SOIL SOLARISATION</b></p> <p>Cover soil with a tarp and kill harmful pathogens</p> 			
		<ul style="list-style-type: none"> <li>• Plant when soil temperatures are lower and nematodes are less active</li> </ul>				

## HOST RANGE

Brassica crops and weeds, silverbeet, beetroot and rhubarb

# BLACK LEG (PHOMA LEAF SPOT)

*Leptosphaeria maculans (Phoma lingam)*

## WHAT SHOULD I LOOK FOR?



Leaf lesions may appear as (a) grey circular spots containing many small black dots or (b) white to brown spots with many tiny black dots in the centre  
*L. Tesoriero, Crop Doc Consulting*














Stem and stalk develop sunken brown to purple lesions which eventually turn black and split  
*L. Tesoriero, NSW DPI*

<p><b>WHERE WILL I SEE SYMPTOMS?</b></p> <p>STEM LEAVES</p>	<p><b>FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT</b></p> <p>WET WARM WINDY</p> <p>• 10-15°C for spread</p>
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<p><b>DISTRIBUTION IN THE FIELD</b></p> <p><b>SCATTERED</b></p> <p>Individual/small patches of infected plants</p>	<p><b>HOW DOES IT SPREAD?</b></p> <p>FREE WATER WIND MOVEMENT OF CONTAMINATED SOIL CONTAMINATED PLANT DEBRIS INFECTED SEED/SEEDLINGS</p> <p><b>SURVIVAL TIME WITHOUT HOST</b>   Less than 3 years</p>
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## HOW DO I CONTROL IT?

<b>FALLOW/COVER CROP</b>	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 
<b>PLANTING PREPARATION</b>	<p><b>DRAINAGE</b></p> <p>Plant on raised beds or well-draining soil</p> 	<p><b>SOIL SOLARISATION</b></p> <p>Cover soil with a tarp and kill harmful pathogens</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<p><b>USE CLEAN SEED OR SEEDLINGS</b></p> <p>Source seed/seedlings from a certified reputable source</p> 
<b>POST-PLANT</b>	<p><b>IRRIGATION MANAGEMENT</b></p> <p>Monitor crop and soil to optimize amount and timing</p> 	<p><b>AVOID PLANT INJURY</b></p> <p>Avoid any physical damage to plant</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	

- Solarise for 4-6 weeks preplanting with soil temperature ideally reaching 30°C +

## HOST RANGE

Crop and weed brassicas including cabbage, Chinese cabbage, kale, broccoli, cauliflower, canola mustards, radish, turnip and shepherd's purse

## WHAT SHOULD I LOOK FOR?



Digging up wilted plants reveals knot-like swelling (galls) on the root system

*S. Grigg, Ag-Hort Consulting*



Scattered areas of wilted plants may be seen across the field

*S. Grigg, Ag-Hort Consulting*

## WHERE WILL I SEE SYMPTOMS?



WHOLE PLANT

ROOTS

## FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



WARM

WET

pH < 7  
ACIDIC SOIL

• 20-26°C

## DISTRIBUTION IN THE FIELD

## SCATTERED

Individual/small patches of infected plants











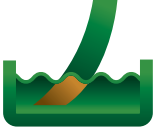


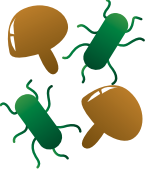





## HOW DOES IT SPREAD?



**SURVIVAL TIME WITHOUT HOST**

More than 10 years

## HOW DO I CONTROL IT?

<p><b>FALLOW/COVER CROP</b></p>	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 
<p><b>PLANTING PREPARATION</b></p>	<p><b>DRAINAGE</b></p> <p>Plant on raised beds or well-draining soil</p> 	<p><b>CROP SELECTION</b></p> <p>Choose a resistant/less susceptible cultivar</p> 	<p><b>SOIL PH</b></p> <p>Use amendments to adjust soil pH</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 
<p><b>POST-PLANT</b></p>	<p><b>CHEMICAL TREATMENT</b></p> <p>Use registered soil drench at planting</p> 	<p>• Consult APVMA or InfoPest website for current registered products</p>	<p><b>AVOID PLANT INJURY</b></p> <p>Avoid any physical damage to plant</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	<p><b>IRRIGATION MANAGEMENT</b></p> <p>Monitor crop and soil to optimize amount and timing</p> 	<p><b>REMOVE INFECTED PLANTS</b></p> <p>Contain and dispose of infected plant material away from field</p> 

# DAMPING OFF/WIRESTEM

*Pythium spp. / Rhizoctonia solani*

## WHAT SHOULD I LOOK FOR?



Brassica seedlings showing symptoms of wilting and death caused by damping off.

*B. Winter, Stuart Grigg Ag-Hort Consulting*



Stem discolouration and rot evident at stem base, in this case caused by *Rhizoctonia* spp. Stem eventually collapses leading to wilt and plant death

*L. Tesoriero, Crop Doc Consulting*

### WHERE WILL I SEE SYMPTOMS?



### FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



• 13-15°C

### DISTRIBUTION IN THE FIELD

#### LARGE AREAS

Large areas of infected plants clearly visible



• Small areas (3-4 infected plants) may also be visible

### HOW DOES IT SPREAD?

















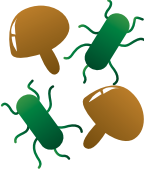



**SURVIVAL TIME WITHOUT HOST**

More than 10 years



## HOW DO I CONTROL IT?

FALLOW/COVER CROP	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 
PLANTING PREPARATION	<p><b>DRAINAGE</b></p> <p>Plant on raised beds or well-draining soil</p> 	<p><b>TRANSPLANTS</b></p> <p>Use seedling transplants - not direct seeding</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<p><b>USE CLEAN SEED OR SEEDLINGS</b></p> <p>Source seed/seedlings from a certified reputable source</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>CHEMICAL TREATMENT</b></p> <p>Treat seed/seedlings with registered fungicide</p> 
POST-PLANT	<p><b>IRRIGATION MANAGEMENT</b></p> <p>Monitor crop and soil to optimize amount and timing</p> 	<p><b>REMOVE INFECTED PLANTS</b></p> <p>Contain and dispose of infected plant material away from field</p> 	<p><b>AVOID PLANT INJURY</b></p> <p>Avoid any physical damage to plant</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 	<p><b>CONTROL PESTS</b></p> <p>Control insect pests that spread spores</p> 

## HOST RANGE

Crop and weed brassicas including cabbage, Chinese cabbage, kale, broccoli, cauliflower, canola mustards, radish, turnip, shepherd's purse

# FUSARIUM WILT/YELLOWS

*Fusarium oxysporum f. sp. conglutinans*

## WHAT SHOULD I LOOK FOR?



Cutting open the stem reveals brown discolouration of the internal tissue

*L. Tesoriero, Crop Doc Consulting*



Often lower leaves appear stunted, wilt and turn yellow more on one side of the plant. May be confused with water stress or nutrient deficiency

*L. Tesoriero, Crop Doc Consulting*

### WHERE WILL I SEE SYMPTOMS?



### FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



WARM

- >22°C Varies between types of Fusarium



PLANT STRESS

- Especially potassium deficiency



AMMONIUM FERTILISERS

- Ammonium fertilisers can favour disease

### DISTRIBUTION IN THE FIELD

#### SCATTERED

Individual/small patches of infected plants



### HOW DOES IT SPREAD?



INFECTED SEED/SEEDLINGS



FREE WATER












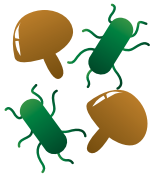




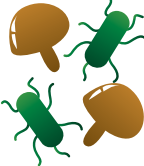


MOVEMENT OF CONTAMINATED SOIL

**SURVIVAL TIME WITHOUT HOST**

More than 10 years

## HOW DO I CONTROL IT?

FALLOW/COVER CROP	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 
PLANTING PREPARATION	<p><b>CROP SELECTION</b></p> <p>Choose a resistant/less susceptible cultivar</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	<p><b>FERTILISER SELECTION</b></p> 	<p><b>CHEMICAL TREATMENT</b></p> <p>Use registered soil drench at planting</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 
POST-PLANT	<p><b>CONTROL PESTS</b></p> <p>Control insect pests that spread spores</p> 	<p><b>REMOVE INFECTED PLANTS</b></p> <p>Contain and dispose of infected plant material away from field</p> 	<p><b>AVOID PLANT INJURY</b></p> <p>Avoid any physical damage to plant</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 	

- Consult APVMA or InfoPest website for current registered products

- Use non-brassicas e.g. biofumigant sorghum varieties

- Calcium supplements may help suppress diseases

- Avoid acidifying ammonium fertilisers

- Particularly important at the seedling stage

## HOST RANGE

Crop and weed brassicas including cabbage, Chinese cabbage, kale, broccoli, cauliflower, canola mustards, radish, turnip, shepherd's purse

# ROOT-KNOT NEMATODE

WARM-CLIMATE SPECIES: *Meloidogyne incognita* | *Meloidogyne javanica* | *Meloidogyne arenaria*

COOL-CLIMATE SPECIES: *Meloidogyne hapla* | *Meloidogyne fallax*

## WHAT SHOULD I LOOK FOR?



Aboveground, scattered areas of stunted, yellow and wilted plants may be visible. Belowground, infection with root-knot nematode results in swelling and galls on the root.  
S. Nelson FLICKR

### WHERE WILL I SEE SYMPTOMS?



• Lower leaves

### FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



• Active 15°C +

• Active 8.5°C +

### HOW DOES IT SPREAD?



### DISTRIBUTION IN THE FIELD

#### LARGE AREAS



















Large areas of infected plants clearly visible



**SURVIVAL TIME WITHOUT HOST**

Less than 3 years

## HOW DO I CONTROL IT?

FALLOW/COVER CROP	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>PLANT TRAP CROPS</b></p> <p>Plant nematode resistant crops that prevent reproduction</p> 	<p><b>ADJUST DATE</b></p> <p>Adjust planting/harvest date to reduce infection risk</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 
	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>ADJUST DATE</b></p> <ul style="list-style-type: none"> <li>Maximise growth in cool conditions when nematode activity is low. Harvest early in high risk situations</li> </ul>	<p><b>SOIL TEST</b></p> <ul style="list-style-type: none"> <li>If numbers are high consider fallow or non-host break crop</li> </ul>	<p><b>BIO FUMIGATION</b></p> <ul style="list-style-type: none"> <li>Use non-brassicac e.g. biofumigant sorghum varieties</li> </ul>	
	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	
	<p><b>CROP SELECTION</b></p> <p>Choose a resistant/less susceptible cultivar</p> 	<p><b>SOIL SOLARISATION</b></p> <p>Cover soil with a tarp and kill harmful pathogens</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	

## HOST RANGE

Very wide with over 2000 plant species acting as hosts to root-knot nematode

# SCLEROTINIA ROT (WHITE MOULD)

*Sclerotinia sclerotiorum* | *S. minor*

## WHAT SHOULD I LOOK FOR?



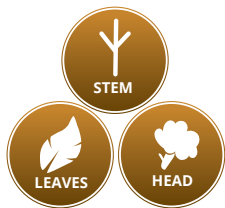
Symptoms begin as water-soaked lesions which eventually rot and collapse R. Lancaster, DPIRD



Characteristic white fluffy growth with black fruiting bodies (sclerotia) as seen on (a) a cauliflower head and (b) kale head. *S. sclerotiorum* produce sclerotia up to 25mm long and *S. minor* produces much smaller sclerotia (up to 3mm long)

a: R. Lancaster, DPIRD; b: G. Holmes, California Polytechnic State University, Bugwood.org

### WHERE WILL I SEE SYMPTOMS?



### FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT



• 13-18°C

### DISTRIBUTION IN THE FIELD

#### SCATTERED

Individual/small patches of infected plants



### HOW DOES IT SPREAD?



WIND



FREE WATER











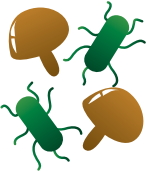


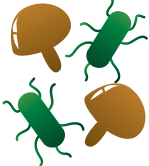


MOVEMENT OF CONTAMINATED SOIL

**SURVIVAL TIME WITHOUT HOST**

3-10 years

## HOW DO I CONTROL IT?

<b>FALLOW/COVER CROP</b>	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>HOST-FREE ZONE</b></p> <p>Control volunteer host plants and weeds</p> 	<p><b>CHEMICAL FUMIGATION</b></p> <p>Always use with care and as per label</p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 
<b>PLANTING PREPARATION</b>	<p><b>AIR CIRCULATION</b></p> <p>Increase row/plant spacing to improve air flow</p> 	<p><b>DRAINAGE</b></p> <p>Plant on raised beds or well-draining soil</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 	
<b>POST-PLANT</b>	<p><b>CHEMICAL TREATMENT</b></p> <p>Treat plant with registered foliar fungicide</p> 	<p><b>REMOVE INFECTED PLANTS</b></p> <p>Contain and dispose of infected plant material away from field</p> 	<p><b>BIOCONTROL PRODUCTS</b></p> 	<ul style="list-style-type: none"> <li>• Consult APVMA or InfoPest website for current registered products</li> </ul>		

## HOST RANGE

Very wide (more than 400 different plant species). Infects most brassica vegetable crops and many weeds e.g. shepherd's purse, thistles, mustard and pigweed

# VERTICILLIUM WILT

*Verticillium dahliae* | *V. longisporum*

## WHAT SHOULD I LOOK FOR?







Pale green to yellow discolouration between veins. Eventually leaf will wilt and die, often only on one side of the plant. Discoloured vascular tissue can also be seen at the base of the plant.

*L. Tesoriero, Crop Doc Consulting*



Cutting open the stem reveals brown flecks of discoloured vascular tissue, often in a V-shape














*Ohio State University Extension*

<p><b>WHERE WILL I SEE SYMPTOMS?</b></p> 	<p><b>FAVOURABLE CONDITIONS FOR DISEASE DEVELOPMENT</b></p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="465 1276 593 1404">  <p>WARM</p> <ul style="list-style-type: none"> <li>• Air 23-25°C optimum for infection</li> </ul> </div> <div data-bbox="645 1276 772 1404">  <p>pH &gt; 7 ALKALINE SOIL</p> <ul style="list-style-type: none"> <li>• pH &gt; 7</li> </ul> </div> <div data-bbox="824 1276 952 1404">  <p>AMMONIUM FERTILISERS</p> <ul style="list-style-type: none"> <li>Ammonium fertilisers can favour disease</li> </ul> </div> </div>
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<p><b>DISTRIBUTION IN THE FIELD</b></p> <p><b>SCATTERED</b></p> <p>Individual/small patches of infected plants</p> 	<p><b>HOW DOES IT SPREAD?</b></p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="1680 1276 1807 1404">  <p>FREE WATER</p> </div> <div data-bbox="1814 1276 1942 1404">  <p>MOVEMENT OF CONTAMINATED SOIL</p> </div> </div> <p><b>SURVIVAL TIME WITHOUT HOST</b>   More than 10 years</p>
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## HOW DO I CONTROL IT?

FALLOW/COVER CROP	<p><b>FARM HYGIENE</b></p> <p>Stop movement of contaminated soil, water, plants and equipment</p> 	<p><b>CROP ROTATION</b></p> <p>Select non-host rotation or cover crops</p> 	<p><b>SOIL SOLARISATION</b></p> <p>Cover soil with a tarp and kill harmful pathogens</p> 	<p><b>BIO FUMIGATION</b></p> <p>Grow a biofumigant crop</p> 	<ul style="list-style-type: none"> <li>• Use non-brassicas e.g. biofumigant sorghum varieties</li> </ul>	
PLANTING PREPARATION	<p><b>FERTILISER SELECTION</b></p> 	<p><b>IMPROVE SOIL HEALTH</b></p> <p>Add organic matter or amendments to boost beneficial microbes</p> 	<p><b>SOIL TEST</b></p> <p>Conduct a pre-sowing soil test to help predict level of risk</p> 	<p><b>CROP SELECTION</b></p> <p>Choose a resistant/less susceptible cultivar</p> 	<p><b>NO RESIDUE AT PLANTING</b></p> <p>Ensure no plant residues from host crops at planting</p> 	<ul style="list-style-type: none"> <li>• Ammonium fertilisers help suppress disease</li> </ul>
POST-PLANT	<p><b>REMOVE INFECTED PLANTS</b></p> <p>Contain and dispose of infected plant material away from field</p> 	<p><b>AVOID PLANT INJURY</b></p> <p>Avoid any physical damage to plant</p> 	<p><b>AVOID WATER STRESS</b></p> <p>Ensure plants receive adequate water</p> 	<p><b>GOOD NUTRITION</b></p> <p>Ensure plants' nutritional needs are met</p> 		

## HOST RANGE

Brassica crops and weeds, tomatoes and olives