



# Vegetable -Matters-of- Fact

Based on research funded by Asparagus growers, Horticulture Australia , QDPIF & CFNZR

Number 21  
April 2004



# Asparagus

## Phomopsis (Stem Blight) (*Phomopsis asparagi*)

- Caused by the fungus *Phomopsis asparagi*.
- Phomopsis infects both fern and spears.
- First detected in Queensland in 2000 and not yet found in Victoria.
- Can lead to greatly reduced yields and ultimately crown death.
- If you suspect you have Phomopsis contact your local VegCheque Officer or DPI Plant Standards



These small phomopsis lesions will eventually join to form one large lesion.



A paddock with extensive phomopsis infection.

### Infection and symptoms

Phomopsis is a fungal disease of asparagus and is found world-wide, including QLD. It has not yet been found in Victoria.

Infection by phomopsis is during the first 14 days of spear emergence. Spears make contact with over-wintering spores on crop debris as they move through the soil. The debris can be either above or below ground.

Volunteer seedlings can also spread the disease to next seasons growth. Infection is most severe under humid conditions and wets soil. Wet and windy conditions will cause phomopsis to spread more rapidly.

Visual symptoms first appear as water soaked spots. In favourable conditions (cool with high humidity) symptoms may appear as early as one week after emergence of spears. Symptoms will continue to appear for up to six weeks, after which lesions will grow in size. New lesions are unlikely to appear.

Symptoms progress to oval discoloured tissue with light brown centres and darker margins. The infected stem tissue becomes shrivelled and lesions become ashy white in the centre, surrounded by black pinhead sized dots filled with spores.





This phomopsis lesion is well advanced and shows the characteristic “black dots” which are filled with spores.



Typical symptom of advanced phomopsis where fern bends over due to weakening of the stem by a lesion. The top of the fern dies when sap flow is blocked.

## Monitoring and Control Strategies

Complete eradication of the disease is unlikely.

- Start scouting for symptoms of phomopsis on fern from four weeks old, particularly if conditions are wet and cool.
- Look for yellow or dying fern. Walk through the crop looking for lesions on stems or ferns that are bent over.
- Pay particular attention to areas that are more wet or likely to be more humid.
- Volunteer seedlings and other unwanted asparagus plantings must be destroyed to control infection sources.
- Reduce the risk of infection by physically removing crop residue or by burning it.
- Volunteer seedlings and other unwanted asparagus plantings must be destroyed to control infection sources.
- Extra care should be taken with hygiene as spores can be spread on clothing and equipment.
- Possible sources of infection are pickers, machinery, knives and pallets particularly any equipment that might have been used in Queensland.

**Phomopsis is very unlikely to spread to your farm as wind blown spores.**

**Establish good farm hygiene practices and make sure visitors follow your rules.**

### Are you on our mailing list?

If you would like to receive your own copy of *Vegetable Matters-of-Facts* or have changed your address, please contact the editor: **Rob Dimsey T: 03 5152 0600**

### Check us out and view our other fact sheets:

<http://www.dpi.vic.gov.au/agvic/ihd/projects/vchq.htm>

**For more information please contact your local VegCheque officer :**

Neville Fernando	Gippsland	5152 0600
Sally-Ann Henderson	Northern Vic	5051 4500
Bruce Fry	South West Vic	5233 5510
Slobodan Vujovic	Melbourne	9210 9222

Information for this fact sheet was provided by HAL Project VX02001, funded by Asparagus Growers and QLD-DPI&F.

For more information contact:

**Gisele Irvine**

**DPI-Knoxfield- Vic (03) 9210-92**

**or**

**Dean Beasley**

**DPI-Stanthorpe-Old (07) 4681-1255**

*Vegetable Matters-of-Facts* is published as part of DPI's VegCheque extension program.

Editor: Rob Dimsey, DPI-Bairnsdale, 03 5152 0600.

Disclaimer: This publication may be of assistance to you but the state of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purpose and therefore disclaims all liability for any error, loss or other consequences which may arise from you relying on any information in this publication.

© The State of Victoria, Department of Primary Industries, 2003.

ISSN: 1445-5676