



# Xanbac D™

Reg. No.L2097 Act No. 36 of 1947

## A BROAD SPECTRUM FUNGICIDE / BACTERICIDE

An agricultural emulsifiable concentrate contact bactericide and fungicide for use against diseases of cotton, groundnuts, potatoes, beans, tomatoes and certain other vegetable and horticultural crops.

ACTIVE INGREDIENT:

Dichlorophen..... 200 g/l



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Pink Root of onions is caused by the soil borne fungus *Pyrenochaeta terrestris*.

Control of soil borne fungi is not easy, and a simple foliar fungicide application is often not effective, except if the fungicide is highly systemic. A problem with soil borne pathogens is that they usually cause disease either at soil level or below the ground, making control very difficult. Root rot caused by various *Pythium*, *Phytophthora* and *Fusarium* species are typical soil borne pathogens.

roots die off, and new roots become infected and also die off. Plants appear as if they have a nutrient deficiency or are suffering from drought. In the case of infected seedlings, they may die. The disease occurs most often in mature plants where bulbing can begin earlier than in uninfected plants. Plants are often stunted with bulbs being shrivelled and therefore unmarketable.

The only chemical remedy which is registered in South Africa for the control of Pink Root is Xanbac D

# The solution for Pink Root

In the case of pathogens such as *Sclerotinia* and *Sclerotium*, symptoms of infection only occur once the plants have canopied. Infection sites of these pathogens are at soil level or on the roots, so penetration of the canopy with a contact fungicide is difficult. Soil borne diseases are a severe problem where crop rotation cannot be practiced since the pathogen persists in the soil, year after year, causing disease again to a susceptible crop.

In the case of onions, the bulb being below the ground is susceptible to a host of soil borne pathogens. Among these is *Pyrenochaeta terrestris*, which causes a disease called Pink Root (figure 1 and 2). Since the bulb is the marketed part of the crop, it has to be protected against all pests and pathogens. Pink Root is one of the most devastating diseases of onions grown in warm climates.

Infected roots are light pink at first, and later become deeper pink and even red. In the advanced stages of the disease, roots become purple. Infected



Figure 2. Onion plants showing damage by *Pyrenochaeta terrestris*.



Figure 1. Typical symptoms of Pink Root of onions.

(active ingredient dichlorophen 200g/L). Xanbac D is a patented Plaaskem product, and is highly effective against Pink Root when applied at a rate of 2 to 3 L/ha as a drench (in 30 000 L to 50 000 L of H<sub>2</sub>O/ha). Xanbac D is also effective against White Bulb Rot (*Sclerotium cepivorum*) of onion and garlic. Application should commence at the six to eight leaf stage, and a rigid program must be followed for optimal control of the disease. It is suggested that irrigation of between 3 mm and 5 mm be applied directly after the Xanbac D application. For seedlings, treatment should commence at the four to six true leaf stage. In the case of transplants, the application of Xanbac D should be done after the emergence of two to four new leaves.

Xanbac D is also registered against a range of other crops including potatoes (stem canker), cole crops (bacterial spot), lettuce (*Pythium*, *Rhizoctonia* and *Botrytis* rots), cucumbers (cucumber wilt), green peppers and tomatoes (damping off), beans (root rot) and groundnuts (*Phoma* and *Cercospora* leaf spots).



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