

Proxan

Reg. Nr. / No. L6738 Wet Nr. / Act No. 36 van / of 1947



Double-Action Fungicide / Bactericide

- Contains two active ingredients that work in synergy
- Free-flowing liquid formulation
- Eliminates the need for dusty copper formulations
- Volumetrically applied
- Can be safely used with aerial sprays
- Can be applied during flowering stage

Proxan

A double-barrelled approach to halo blight (*Pseudomonas phaseolicola*)

Beans have always been a high-value crop which, if tended correctly, gives the farmer a high return on his investment. Unfortunately, however, beans are susceptible to a range of insect and microbial pests which present distinct challenges to the farmer. One of these is halo blight, caused by *Pseudomonas phaseolicola* (Figure 1) which has the ability to totally decimate a crop. Proxan (Reg. No. L 6738) contains copper hydroxide and dichlorophen, and provides the farmer with the solution to halo blight.

Resistance to copper never diminished

The history of fungicides in agriculture dates back to the mid 1800's. The Bordeaux mixture (used in the Bordeaux region of France for the control of powdery mildew of grapes) contains copper sulphate and lime and is considered to be the first fungicide ever to have been used. The Bordeaux mixture is still used to this day, largely because microbial resistance to copper has never been reported. This is, however, not true for certain other fungicides where efficacy has been reduced owing to microbial resistance to the active ingredient.

Preventative rather than curative

The action of copper fungicides is preventative rather than curative and therefore such fungicides have to be applied before microbial infection occurs. Preventative fungicides, if correctly applied, benefit the plant in that the plant does not need to expend energy fighting a microbial infection and this energy can be channelled to growth and yield.

Safest form of copper

Various copper compounds have been used in agriculture as the active ingredient (ai) of a variety of fungicides. Copper oxychloride is very unstable, and is prone to leaf burning (especially at acidic pH levels). Other forms of copper are copper oxide, copper ammonium carbonate, copper sulphate, basic copper carbonate (not used widely) and copper hydroxide, the safest form of copper.

Unique compound

Dichlorophen is a unique compound in agriculture, with Plaaskem holding the only registration of this active ingredient worldwide. Together these two active ingredients form a formidable combination for the control of halo blight of beans at a rate of 300 ml/100l of water to a maximum of 3l/ha.

Application

Proxan can be applied to beans up to 7 days before harvest. Proxan can also be applied aerially at a rate of 3l/ha. Since both active ingredients in Proxan are contact fungicides, applications have to be done weekly to fortnightly. However, the distinct advantage of contact fungicides, is that they have a short withholding period, and can be applied to the crop almost up to the harvest date.



Figure 1: Halo blight of beans caused by *Pseudomonas syringae* pv. *phaseolicola*. (Photograph credit: K. Serfontein)

