

# TECTO

## New Fungicide controls Fusarium Patch

One of the most difficult and damaging diseases of turf is probably fusarium patch disease (*Fusarium nivale*) which attacks most varieties of grasses used on amenity and ornamental situations. However, a new systematic fungicide is now on the market which, in wide-scale trials, over the past two years, has shown a very high level of control of the disease.

The basic active ingredient is thia-benzazole – chemical name 2-(4-thiazolyl) benzimidazole. It was developed by Merck Sharpe & Dohme and has been in use as an anthelmintic for livestock since 1962. The new formulation developed by Rothwell Plant Health Ltd., is now available under the brand name of 'Tecto Systemic Turf Fungicide' and is marketed in the U.K. by Synchemicals Limited.

Attacks of fusarium patch disease can occur throughout the year but are likely to be most serious during late summer and early autumn or whenever the weather is dull and damp. Like most fungal diseases it flourishes in conditions of low sunshine and will attack grass in the middle of winter if conditions are mild enough. This situation can be

particularly bad if too much nitrogen has been applied in the autumn encouraging a late growth of lush grass.

The first signs of the disease are usually small, circular patches, about 1 to 3 in. in diameter which have a dull, slimy appearance. This can be preceded either by browning of the grass or copious growths of mycelium which begin to show up before the grass discolours. The grass then rapidly becomes limp and collapses whilst in moist conditions a faint fringe of white or pale pink mycelium appears and tends to mat the aerial parts of the plant together. The patches rapidly lose their colour and eventually the grass blades turn brown. If left unchecked the patches will gradually increase to 12 in. or more in size as the spores spread and infected areas will begin to merge into each other in large irregular areas.

The fungus may penetrate into the crown of the plant which collapses and will often die right out allowing indigenous weedy species to take over.

Attacks are usually started by renewed growth of dormant mycelium present in the sole of the turf. The disease is spread by spores being carried on machinery, feet or by infected grass cuttings being moved from one place to another. As soon as conditions are right, the disease begins its attack on new areas of turf.

Until now the most widely-used treatment for the disease has been with a mercurial dressing. However, the main disadvantages with this chemical is that it often reduces the greenness of the grass and this is particularly important as far as sports and amenity areas are concerned. In addition, there are indications that the effect on colour is a sign of reduced photosynthetic activity and this, of course, affects the entire growing process of the grass.

In trials with Tecto Systemic Turf

Fungicide, particular attention has been paid to any changes in colour of the turf following treatment and comparative trials with mercury have shown a much better colour result is obtained with Tecto Systemic Turf Fungicide.

Since 1971 trials have been carried out on a range of golf greens and fairways, bowling greens, tennis courts, cricket pitches and ornamental turf areas. Best results have come from an application of 2 oz. of Tecto Systemic Turf Fungicide in 2½-10 gal. of water for 1,000 sq. ft. using a conventional sprayer.

Comparative trials in 1972 using mercury salts, Tecto Systemic Turf Fungicide and untreated control plots over five different sites showed that the area treated with mercury salts reduced the infection area one week after treatment to 77 per cent compared with 100 per cent on the untreated area, while that treated with the new fungicide, showed a reduction in the infected area to 39 per cent. Six to eight weeks after the first treatment with a second application at the four week stage, the infected area in the control plot had risen to 108 per cent, the mercury treated area was down to 62 per cent while the Tecto treated area was cut to only 24 per cent (see Table I). A big advantage with Tecto's systemic activity is that it protects the whole leaf of the plant as well as killing the disease spores.

In another series of trials carried out by Rothwell Plant Health the new formulation has also been shown to have a good level of activity against Corticium disease or Red Thread (*Corticium fuciforma*) and Dollar Spot (*Sclerotinia homoeocarpa*) and it likely that a similar method of treatment with Tecto Systemic Turf Fungicide will be recommended for these two diseases for the coming season (see Table II).

Initially Tecto Systemic Turf Fungicide is being recommended as

a curative treatment for Fusarium Patch but in areas where the disease risk is high it is likely that the chemical will be most effective when used as a prophylactic dressing as part of the general system of turf maintenance in the autumn.

**TABLE I**  
**Relative Fusarium Patch Levels**  
(Mean of five sites)

	1 week after treatment	4 weeks after treatment	6-8 weeks after treatment
Nil	100	111	108
Mercury Salts	77	71	62
Tecto Systemic Turf Fungicide	39	44	24

(Treatment was repeated after three weeks)

**TABLE II**  
**Effect of treatment on Dollar Spot and Red Thread**  
(Mean of four sites)

	Dollar Spot		Red Thread	
	Nil	Tecto	Nil	Tecto
After 1 week	100	30	100	71
After 3-4 weeks	152	20	135	36
After 6-8 weeks	21	trace	84	10

(Treatment was repeated after three weeks)

## Book Review

The first edition of:

A new annual 'Guide to Golf Courses in the U.K. 1973' has just been published by I.P.C. Business Press Information Services. Each Club Captain and Secretary will get a free copy. The rest of us will pay £2. Quite a lot of book for the money – over 35 oz. of information, local, general and specific. Fun to roam about in – Indian restaurants, hotels, carpets, tree surgery, fashion houses – with little snippets of Tom Scott woven into these advertisements. Golf Clubs are listed under counties and they all seem to be there including several I had never heard of. For those of you no longer living in North Kent, the advertisement of funeral directors in that area appear on page 220. Older warriors will turn to page 61 for that Ferndown restaurant 'Valhalla'.