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NET BLOTCH OF BARLEY

By THE PLANT PATHOLOGY BRANCH

NET Blotch is the commonest disease of barley in Western Australia, attacking all commercial varieties and causing considerable damage to foliage of maturing crops. Despite its prevalence, net blotch is rarely the cause of a serious crop loss.

The disease is caused by the fungus *Pyrenophorateres* (Died.) Drechsl. and has been recorded only on cultivated barley in this State.

**Symptoms.**

On leaves, net blotch first becomes evident as small brown blotches containing networks of darker, fine lines. The spots enlarge longitudinally and coalesce to form small stripes with irregular margins (Fig. 1). These stripes tend to run parallel to the main veins, and at a more advanced stage, may extend the whole length of the leaf blade.

However, the stripes seldom continue into the leaf sheath, and by this symptom, net blotch may be readily distinguished from the closely related stripe disease (*Helminthosporium gramineum*).

The disease also affects the floral parts and on the kernels causes indistinct brown spots, which lack the conspicuous networks of leaf blotches.

**Carry Over and Spread.**

As the net blotch is seed borne, initial seedling infections often arise from the sowing of diseased seed. However, the main carry-over is on diseased crop residues and numerous fungal seeds (spores) are produced on this material during the cool, wet weather, which normally follows seeding. These spores
are carried by the wind into nearby crops and infect the foliage of young barley seedlings.

As the season continues, more spores are produced on the new blotches and the disease spreads through the crops.

**Prevention and Control.**

1. Seed should be dry pickled with an organic mercury dust. This will control the seed borne phase of net blotch, as well as that of covered smut.

2. Diseased residues from barley crops should be ploughed under or burned at the earliest opportunity. This will prevent the production and dissemination of spores during the following season.

3. If practicable, barley should be grown in paddocks well separated from those cropped with this cereal during the previous year.

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**SURPLUS PASTURE ON THE DAIRY FARM**

THE season so far has been one of the best on record in the South-West, and many dairy farmers now have more feed than their cattle can eat.

The result is that some paddocks have not been grazed since the season opened, and others which have been grazed once should now be grazed again. The time has come to face up to the unusual problem of having too much feed.

Too little grazing is as much a fault as overgrazing, as it can quickly lead to deterioration of desirable pasture plants when such things as capeweed and erodium flourish at the expense of clover. This could become a serious problem on some farms this year, with pasture composition falling off by the end of the season.

To stop feeding hay is not a solution to this problem; it will pay to continue to encourage milking cows to eat up to 10 lb. a head a day until the end of August, even though excess pasture is a problem. Hay quality must be good for the cows to eat this much, and if a hammer mill is available it may help to feed hammer milled hay in the bales.

Purchase of extra stock is a good solution to the surplus pasture problem, but one not available to many farmers—either through lack of finance, a shortage of the right sort of animals, or a variety of other reasons.

How to manage the surplus pasture should depend on the composition of pasture in the various paddocks. Often, it may be better to leave some paddocks completely unstocked with a view to cutting for early silage, say in early September. These should be the weedy paddocks which need reseeding anyhow, or those with no weed composition where the desirable pasture plants will not be unduly harmed by undergrazing. The very weedy paddock would be the logical choice.

After cutting for silage the weedy paddock should be mouldboard ploughed and cropped, either to a cereal planted in early September for hay or grain, or a fodder crop such as Sudan grass, planted in October–November. In either case it is then important to reseed early next autumn. Sow useful pasture species, and do not just rely on the clover to come back after the cultivation.

Oats planted dry for early feed have not been as useful this year as in seasons with a later opening, and many farms will have a surplus of this. It will mature too early for hay, but should be ideal for early silage. This silage would be improved if the paddock also had an undergrowth of clovers and grasses, or if the oats was mixed with material cut from an adjacent weedy pasture paddock. When such silage is made layers of the more mature oats could be put under the high moisture content pasture to give better silage quality.

It is important to stock most paddocks to capacity, especially those which contain some weeds but which are not yet ready for reseeding; these are the ones most likely to suffer from undergrazing.

—R. A. BETTENAY.

*(From a rural radio talk)*