ANNUAL GRASS CONTROL IN PASTURES WITH SIMAZINE

Michael Keys, District Agronomist, Queanbeyan
Andrew Leys, Senior Research Agronomist, Wagga
Barney Milne, Field Officer, Orange
Dick Gammie, District Agronomist, Orange.

Vulpia can reduce the carrying capacity of pastures by 25-50%. Research at Wagga (Dr. A Leys) has shown that Simazine can effectively remove Vulpia (also known as silver grass and rats tail fescue) from sub clover pastures during winter with little or no effect on the clover production.

The technique, called winter cleaning, can reduce the carryover of cereal diseases when carried out in the pasture ley prior to sowing cereals. In perennial grass pastures it is a useful technique to reduce the dominance of Vulpia and promote better clover and perennial grass establishment. However, Simazine cannot be used on perennial grass pastures less than 6 months old.

TIMING

The recommended time of application is May to June while the plants are in the early to mid tillering stage. However on the tablelands Vulpia densities are often much greater than on the slopes and sprayings in May and June often result in large areas of bare ground after the annual grasses die. These then become colonised by other weeds, particularly sorrel and thistles.

Trials and several demonstrations in 1988\89 (Keys) showed that late winter sprayings in early August resulted in a tenfold reduction in the amount of bare ground. Clover yield was always greatest with later sprayings. On the debit side the control of Vulpia fell from 90% to 82% when spraying was delayed to the advanced tillering stage in early August.

RATES

While lower rates (1-1.25L/ha) are quite effective where Vulpia density is not extreme, slightly higher rates give better control (> 85%) on the Tablelands and 1.25 to 1.5L/ha is recommended. Activity will be enhanced if Gramoxone is added and when rainfall occurs within 3 weeks of spraying. Simazine must be applied to well grazed pastures with good soil moisture to maximise herbicide effects.

SIMAZINE/GRAMOXONE MIXES

Control of Vulpia and particularly other annual grasses is improved when small amounts of Gramoxone are tank mixed with the Simazine, especially at the low Simazine rates (Fig I). There is a small depression in clover yield compared to plots with the same rate of Simazine but no Gramoxone. Clover yields were generally superior to the unsprayed controls. (Fig II).

A trial in 1989 near Orange (Milne and Gammie) recorded an overall yield depression on pure clover stands through winter of over 40% where Simazine alone was used and 50% with Simazine/Gramoxone tank mixes. The feature of greatest concern was the depression in phalaris production of only 5-10% with Simazine alone compared with a 50% depression with the Gramoxone tank mixes.

Figure 1:

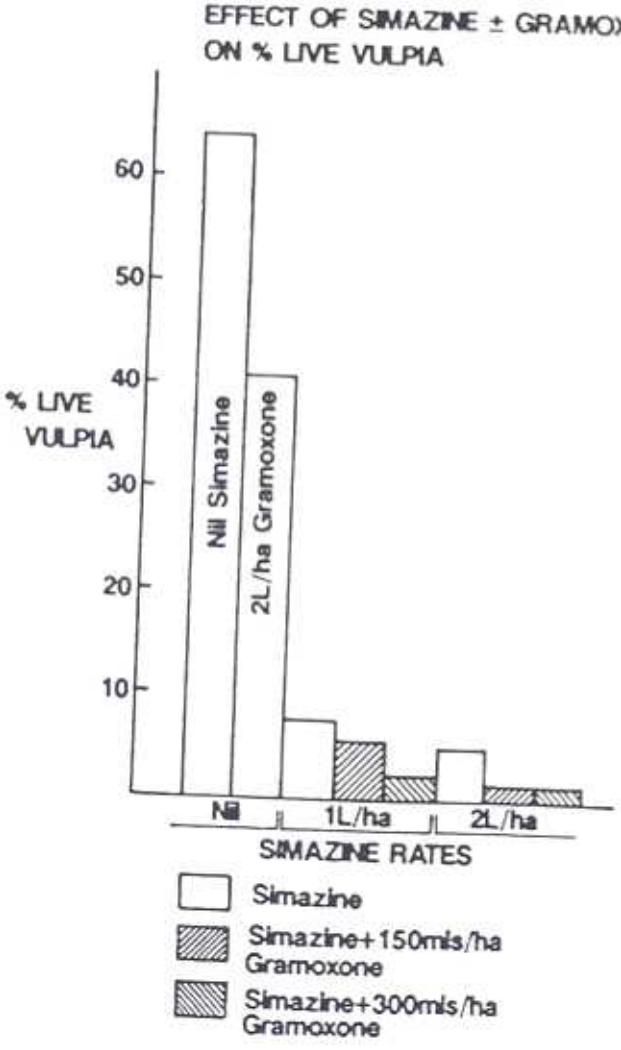

Figure 2: