

WEED CONTROL IN PASTURE SEED CROPS

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As in many other farming operations, the pasture seed crop industry is beset by a cost-price squeeze. Efficient weed control is a most vital part of the enterprise, and so it has been accepted that a major part of production costs is incurred here. At present, therefore, it is quite logical that seed producers are looking at this large expenditure and wondering if it can be reduced.

As the herbicides currently being recommended and used with great success are expensive, (above \$10 per acre) attention is being turned back to the lower cost, hormone-type herbicides. This is particularly so in low-income stands, usually non-irrigated, or in crops mildly infested, especially with grassy weeds.

We have commenced studying the effects of hormone herbicides on the yield and subsequent germination of seed from grass and legume crops.

Last season, plots in a commercial stand of currie cocksfoot were sprayed at fortnightly intervals with 1.0 lb a.e. per acre (1.12 kg per hectare) ester 2,4-D. Successive plots were sprayed from mid June to late October which were the approximate times of commencement of growth and ear emergence respectively. It was found that until early September, this herbicide treatment insignificantly affected subsequent seed yield, however, from the mid September treatment onwards, yield was decreased by as much as 75%. cursory examination indicated that this critical time coincided with the period of commencement of stem elongation. At the time of writing the effects, if any, on the subsequent germination of the harvested seed were still being tested. This work on grass seed crops has been continued this season, and has been extended to ascertain the effects of picloram on grass seed production. This chemical is coming into use in areas where dock is a problem.

It is the practice of farmers in some areas to spray non-irrigated stands of annual legume seed crops at an early stage, with amine 2,4-D at rates up to 0.5 lb a.e. per acre (0.6 kg per hectare). At present, although the weed control obtained is considered satisfactory, there is no data to decide whether or not there is a concomitant loss of yield or germinability, although casual observation would indicate that this is so. A trial is in progress examining the respective effects of 2,4-DB and MCPB both 1 lb a.e. per acre (1.12 kg per hectare) and amine

2,4-D and MCPA, both 0.5 lb a.e. per acre (0.6 kg per hectare), sprayed early, mid-season and just prior to flowering, on both medic and subterranean clover.

Apart from our routine screening of herbicides for this industry, it is hoped to develop these studies in coming seasons.