

WEED CONTROL IN RAILWAY MARSHALLING YARDS:
 A COMPARISON OF SPRAY AND GRANULE
 APPLICATION COSTS

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INTRODUCTION

Railway marshalling yards consist of a large number of closely spaced parallel tracks and may occupy up to 35 ha. A high standard of weed control is essential. Herbicides with post- and pre-emergence capabilities provide the most efficient means of control and it is preferable for application to be possible without having to move wagons. Labour costs for applying conventional water based sprays are high due to access difficulties imposed by wagon storage and movement, and general crowded conditions.

Formulations for dry herbicide application have been available for many years, but they were not suitable for mechanized application and their low active content meant excessive bulk. The development of appropriate herbicides in high analysis form for dry application together with specialized application equipment enabled many of the application problems to be reduced. It was decided to quantify the apparent labour saving that dry application offered.

METHOD

The comparison was based on large scale practical conditions. Port Kembla marshalling yard in N.S.W. was chosen as it had been sprayed by contract the previous year and the labour content of this work was known. When retreatment was due, dry granules were applied by air blast using a modified misting machine carried on the operator's back. Capacity of the unit was 12 kg, giving a range of up to 0.6 ha. Hexazinone was applied at up to 7 kg ha⁻¹ in a 200 g kg⁻¹ granule formulation.

RESULTS AND DISCUSSION

The labour content of the two methods used to treat a 20 ha yard was:-

Spray	-	10 man-days (2 men for 5 days)
Granule	-	3 man-days (1 man for 3 days)

Taking the cost of 1 man and vehicle as \$25 hr⁻¹, spray application cost \$2000 whereas granule application cost \$600. Thus considerable labour savings result from the use of dry granules in marshalling yards. The reduced application

time was due to freer movement of the applicator among the wagons and greater swathe width covered. It was found that the granules scattered well under the wagons and gave an acceptable cover more easily than sprays. Weed control with the granules was considered to be as good as with spray applications at the same rate of hexazinone.