

**EFFECT OF TARGA[®] SUPER
(QUIZALOFOP-P-ETHYL) AGAINST WEEDS IN
CHILLI CULTIVATION IN MANNAR DISTRICT**

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
In partial fulfillment of the requirements for the award of the
Degree of Bachelor of Science in Export Agriculture

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2012

ABSTRACT

Late emergence weeds cause serious problems in chilli cultivation. A field experiment was carried out in a farmer's field with chilli cultivation at Nannatan in Mannar district to study the effect of pre-emergence herbicide Quizalofop-P-ethyl (Targa® Super) against weeds in chilli cultivation, and to compare its effect with the pre-emergence herbicide Pendimethalin (Stomp). The plots were sprayed with Quizalofop-P-ethyl, Pendimethalin or water, the control. The weed species observed in plots were recorded and their dry weight was measured with respect to each treatment. Weed control efficiency was calculated using the dry weight of weeds.

The prominent weed species observed in the experimental site were *Cynodon dactylon*, *Cyperus rotundus*, *Eleusine indica*, *Tridax procumbens*, *Panicum* spp. and broad-leaved spp. Application of Pendimethalin recorded lower broad-leaved weed population compared with Quizalofop-P-ethyl but the latter was effective in controlling grass weeds. Dry weight of weeds in plots treated with herbicides was significantly lower than in untreated control plots. Pendimethalin recorded the lowest weed dry weight followed by Quizalofop-P-ethyl. Weed control efficiency was higher in the plots treated with Pendimethalin than Quizalofop-P-ethyl. This study shows that both herbicides tested are effective against weeds in chilli cultivation; comparatively Quizalofop-P-ethyl is more effective on grasses whereas Pendimethalin better controls broad-leaved spp.

Key words: weeds, pre-emergence, post-emergence, chilli