

DPX 5648 - A NEW EXPERIMENTAL HERBICIDE FOR THE  
CONTROL OF JOHNSON GRASS (*SORGHUM HALEPENSE*)

L. ARENDS and G.A. JACOBS

Du Pont (Australia) Ltd.  
20-22 Balaclava Street  
Woolloongabba Qld. 4102

Experimental work with DPX 5648<sup>1</sup> (Methyl 2-[[[(4,6-dimethyl-2-pyrimidinyl)amino]-carbonyl]amino]sulfonyl]benzoate) in Queensland confirmed the susceptibility of Johnson grass as recorded in the U.S.A. When applied to well established Johnson grass up to flowering stage, DPX 5648 at 0.8 to 1.6 kg ha<sup>-1</sup> provided 95 to 98% control six months after treatment. DPX 5648 at 0.4 kg ha<sup>-1</sup> gave 50% control.

Seedling emergence did not occur until 12 months after application in the plots treated with 0.4 kg ha<sup>-1</sup> whereas in a standard treatment (glyphosate at 2.88 kg ha<sup>-1</sup>), seedlings emerged 8 months after treatment. Seedlings had not emerged after 16 months in plots treated with DPX 5648 at 0.8 and 1.6 kg ha<sup>-1</sup>.

DPX 5648 also appears to provide a high degree of control of many broadleaved weeds including docks (*Rumex* spp.), aniseed (*Pimpinella anisum*), *Lactuca* spp., variegated thistle (*Silybum marianum*), Mexican poppy (*Argemone mexicana*), stagger weed (*Stachys arvensis*), stinking roger (*Tagetes minuta*), native geranium (*Geranium solanderi*), bellvine (*Ipomoea plebeia*), *Sida* spp., and grasses such as summer grass (*Digitaria ciliaris*), Rhodes grass (*Chloris gayana*) and common reed (*Phragmites australis*).

Control of couch (*Cynodon dactylon*) and paspalum (*Paspalum dilatatum*) was poor.

The performance of DPX 5648 appears to depend on high soil moisture levels and vigorous plant growth. Soils containing high levels of carbon appear to reduce its activity. In our post-emergence work with Johnson grass, DPX 5648 appeared to benefit from foliar and root absorption, while providing extended residual control of a range of weeds by inhibiting germinating weed seedling growth.

<sup>1</sup> Trade name Oust.