

THE CHANGED STATUS OF JOHNSON GRASS

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Johnson grass (*Sorghum halepense*) was introduced to the Inverell district some 50-60 years ago and planted as a grazing crop.

Grazing was then the major rural pursuit in the district, so the lack of widespread cultivation limited the threat of this weed. Even so, its vigorous growth and rhizomatous habit soon revealed it as a troublesome species.

The increase in wheat acreages following World War II favoured the spread of Johnson grass. The increasing cost of labour worked heavily against the long-used practice of digging the weed with a mattock or a fork. General road improvement involved more frequent grading of table drains. This led to the spread of roadside infestations of Johnson grass.

This gradual spread of Johnson grass became very rapid during the early 1970s. The major reason for this was the rapid expansion of the district's summer crop area. Between 1969 and 1974, this area increased from about 1000 ha to about 25 000 ha annually.

The growing of crops during summer allows Johnson grass plants to develop fully. This results in seed being set and rhizomes developing to their full extent. Cultivation during the winter for sowing in spring then provides an excellent method of distributing matured seed and rhizomes. Under a strict winter cropping program, however, frequent cultivation during the summer does not allow many Johnson grass plants to mature. The danger of spread by cultivation is therefore much lower.

An increase in cattle numbers in recent years has led to more grazing of mature Johnson grass plants, and hence its spread by seed in dung-pads has increased.

It is difficult to quantify the level of Johnson grass infestation in the district. A survey of roadside infestations has shown that many areas that were previously free of the weed now have many scattered infestations. In recent years, paddocks on many farms close to Inverell have become so heavily infested with Johnson grass that they cannot now be cultivated.

A survey of 100 landowners throughout the district was recently conducted. All agreed that the problem had increased enormously since summer crops increased in area. About 30% regarded Johnson grass as their biggest present weed problem and about 60% regarded it as their biggest potential weed problem.