

Agro-ecology of *Malva* sp. in Western Australia

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Summary *Malva* sp. (mallow) is exploding in the farming systems of Western Australia. Previously, mallow was a minor weed of farmland and disturbed areas, but in recent years it has become a major problem in broad-acre cropping systems of WA, which rely heavily on minimum or no-till farming and effective use of herbicides. Studies have shown that mallow is tolerant of most herbicides.

Mallow populations have been sampled from 12 major cropping zones based on rainfall across the WA wheat-belt. Seeds from each population were germinated in seedling trays and transplanted to a common field site (Perth). Assessments will be made

on germination requirements and growth characteristics, and consequently variation between populations and variation between zones can be determined. In addition, seeds of four populations from different environments around the wheat-belt were buried at the Perth site to determine emergence patterns and seed longevity in the soil.

Future studies will include dormancy and germination requirements, herbicide trials and the development of possible control techniques. These experiments form part of a Ph.D. which began this year (2002). Part of the research will be to determine whether the species present in WA is only *M. parviflora*.