

FACT SHEET



**RURAL
INDUSTRIES**

Research & Development
Corporation

Redclaw Selective Breeding Project

The aim

The object of the research was to produce a strain (the Tolga Strain) of redclaw that is faster growing, genetically diverse and free of disease. Along the way a new method of farming redclaw (S3J Farming) was developed, which offers significant productivity gains to the industry.



The method

Basic, proven research techniques were adopted to suit the skills of the farmers conducting the project. As part of the project, incubator technology from Europe was adapted to Australian conditions and to the biology of the redclaw crayfish.

How was it done?

Over five years, the genes of eleven genetically diverse strains of redclaw were mixed by cross breeding in strict accordance with a "Circular Mating Design". Selections were made for the subsequent year's mating on the basis of fastest growth.

The eggs were stripped from the females and hatched in an incubator to break the disease cycle.

The results

The results of this project show that significant gains in growth rate, typically in excess of 50%, can be achieved by a selective breeding program in a relatively short time. Results also show that ridding the animal of inherent disease by means of hatching eggs in an incubator plays a considerable part in this improvement in growth rate.

What does it mean?

Australian redclaw farmers now have access to improved disease free Tolga Strain Stage Three Juveniles (S3J) which can be delivered 10,000 at a time in one box. The S3J Farming method developed as part of the project can assist to make existing farms more viable, and increase the attractiveness of farming redclaw to new industry entrants.

What next?

The industry has been encouraged by the results of this project, and is collaborating with James Cook University on another RIRDC funded project to improve feeding and nutrition for redclaw.



For more information

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