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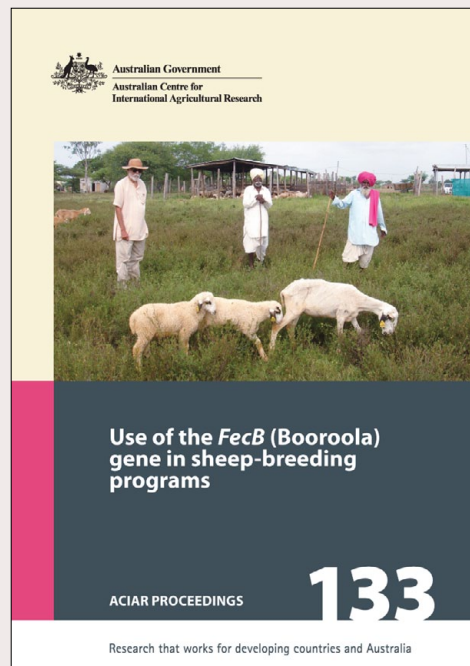
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Use of the *FecB* (Booroola) gene in sheep-breeding programs

The Australian Centre for International Agricultural Research (ACIAR) is pleased to announce the publication of *Use of the FecB (Booroola) gene in sheep-breeding programs*.

This publication is a collection of research and review papers presented at the Helen Newton Turner Memorial International Workshop held in India, November 2008. The workshop was the conclusion of ACIAR projects that entailed more than a decade of research in India on improved meat sheep production.

These projects had a strong focus on genetic improvement of reproductive rate, and were initiated in 1993 at the Nimbkar Agricultural Research Institute at Phaltan, near Pune, India, with the crossing of prolific Garole sheep from West Bengal with local Deccani sheep. The researchers found that the prolificacy of the Garole breed was due to the *FecB* ('Booroola') gene. The Garole sheep and its first-cross offspring proved unsuitable for the local sheep-raising system due to factors such as small size, high lamb mortality and poor adaptability to semi-arid conditions. However, the crossbred ewes carrying the *FecB* gene showed increased prolificacy at a level that was suitable for traditional management practices and of economic benefit to local smallholder sheep owners. The broader implications and potential benefits of introducing the *FecB* gene into the gene pools of local sheep-breeding populations (introgression), not just in India but in other countries as well, were explored at the workshop.



Use of the *FecB* gene is one of the few examples where DNA markers have been shown to clearly benefit practical breeding programs. These proceedings, which contain reviews of current knowledge of *FecB* and its applications internationally, will appeal to professionals and scientists involved in animal-breeding programs, in particular those concerned with increasing reproductive rates in sheep.

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