

Private sector and researchers working together to increase beef cattle farmers' incomes in Sumbawa

A partnership between the University of Mataram and PT Dharma Raya Hutamajaya

There is strong domestic demand within Indonesia for high-quality Bali beef produced in eastern Indonesia.

Demand for Bali beef outstrips supply and there is significant potential in Sumbawa to increase beef production and its productive efficiency, which would result in improved profits for smallholder livestock producers.

The main constraints to increased production are poor cattle management, a lack of high quality feed, and long market chains which reduce farmers' ability to influence cattle prices.

An innovation partnership between the University of Mataram and PT Dharma Raya is working with smallholder cattle producers in Sumbawa to increase their incomes. Rather than produce beef for the local wet market, PT Dharma Raya operates an abattoir that produces frozen beef cuts to the Jakarta market.

This innovation will assist farmers by:

- Improving cattle nutrition and feed management
- Reducing calf mortality and increasing calving rates
- Developing a premium price for high quality, traceable cattle
- Providing access to markets and pricing transparency

The project is centred on introducing the high quality fodder tree, leucaena, which research has demonstrated can increase significantly liveweight gain of growing animals and help increase calving rates of cows.

Farmers are establishing plots of leucaena, which is harvested daily and fed to cattle kept in small household scale feeding stalls. Cattle will reach slaughter weights at a younger age and will be processed by PT Dharma Raya who have established a niche market for Bali beef in Jakarta. Research will also examine the impacts on meat quality, which may become an added market advantage for PT Dharma Raya. In return, farmers who meet the market specifications from turning off beef at a younger age will receive price premiums.

There is capacity to process considerable additional livestock within the existing beef production system, ensuring market and pricing transparency and providing diversity in the opportunities for farmers to sell their animals.



Cattle in Sumbawa being stall fed leucaena

Photo: Rob Caudwell

Applied Research and Innovation Systems in Agriculture (ARISA)

In the ARISA project, CSIRO and the Australian Government are working with the Government of Indonesia (Ministry of State for Research and Technology and the Agency for Assessment and Application of Technology) to increase the incomes of smallholder farmers in eastern Indonesia. ARISA forms part of the AIP-Rural program which promotes economic development, poverty reduction and increased food security in Indonesia by stimulating productivity and increasing farmers' access to markets

A partnership between the private sector and Indonesian research institutions underpins this innovation. Key organisations supporting smallholder farmers include:

- The **University of Mataram** will build farmers' capacity in: cattle nutrition, health and reproduction; livestock feed management; improvements to forages with a focus on leucaena; and work with PT Dharma Raya on meat quality.
- A market for livestock will be provided by PT Dharma Raya; this will result in shorter production cycles and increased profits for

farmers. PT Dharma Raya will also build capacity in beef cattle traceability, quality and safety.

- **Livestock Dinas** in Sumbawa and West Sumbawa districts will work with farmers to facilitate livestock production capacity building and knowledge dissemination.

This innovation, part of the ARISA project, commenced in October 2015. It aims to work directly with over 1,200 smallholder households in Sumbawa over the next three years.



A plantation of leucaena trees used to fatten Bali beef cattle in Sumbawa

Photo: Rob Caudwell

