

Researchers and the private sector increasing maize farmers' incomes in West Nusa Tenggara (NTB)

A partnership between Asia Crop Solutions, Syngenta and the University of Mataram

Indonesia is the world's sixth largest producer of maize. Domestic demand for maize is strong.

Maize production in the drier regions of NTB is low (around 2.8-3.8t/ha). While rainfall in these drier areas is limiting, yields are lower than expected as a result of smallholder farmers' lack of knowledge of appropriate crop management practices and poor access to high-quality inputs (particularly seeds and fertiliser) or to credit facilities.

An innovation partnership between Asia Crop Solutions, Syngenta and the University of Mataram is working to increase the incomes of maize producers in east and north Lombok.

This innovation will assist farmers to improve their maize production by introducing a range of practices including:

- Dual maize-pulse cropping techniques
- Hybrid maize seed
- Improved fertiliser management
- Post-harvest processing techniques
- Providing access to markets for farmers

Introducing dual maize-pulse cropping facilitates farmers mitigating production risks through increased crop diversity.

Improved crop management practices and dual cropping enable farmers to maintain potential maize yields while benefiting from an additional pulse crop yield.

Short season pulse crops reduce farmers' exposure to terminal season climate stresses and lower the amount of nitrogen fertiliser required for the subsequent maize crop



Maize crop in North Lombok

Photo: I Komang Damar Jaya

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 AIR-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**, which has developed innovating approaches to using hybrid maize seed and fertiliser in combination with legume pulse crops.
- Access to the hybrid maize seeds, pesticides and herbicides is provided by **Syngenta**, in conjunction with farmer learning centres to collaboratively build capacity in best crop management practices.
- **Asia Crop Solutions** advise farmers on post-harvest crop handling techniques and provide a market for grain produced.

This innovation, part of the ARISA project, commenced in October 2015. It aims to work

directly with over 1,100 smallholder households in NTB over the next three years.

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