

## Program Factsheet



Better feeding and  
animal management  
practices to increase  
incomes of dairy  
farmers in East Java

A partnership for innovation between PT Nestle and University of Brawijaya supporting 1,000 dairy farmers to improve feeding and animal management practices

There is increasing domestic demand within Indonesia for domestically produced milk. There are currently around 100,000 smallholder dairy farmers in Indonesia, with an estimated 500,000 dairy cows producing about 930,000 tons of milk. Dairy production is mainly concentrated in Java, and while there are large commercial producers, small-scale dairy farmers dominate production. These farmers are primarily dependent on the sale of milk for their daily income, but average production is low (i.e. 9.5 litres of milk per cow per a day), limiting household income generation.

The main constraints to milk production are (i) on-farm where there are poor farm and herd management practices, small farm sizes, scarcity of forage and good quality feed, poor quality genetics, diseases, and lack of livestock inputs; (ii) downstream where there is poor milk quality, low fat content and uncontrolled antibiotic use; and (iii) systemic constraints– where there is limited access to credit, lack of networking between government, research institutions and industry, and the need for support for the development of new dairy zones.

A partnership facilitated by ARISA between PT Nestle and the University of Brawijaya (UNBRAW) is working with fodder producers and dairy farmers in East Java to overcome these on-farm constraints related to the continuity of fodder supply and variable quality of fodder in the dry season. In addition, the partnership will focus on improving dairy management practices of dairy farmers.

The technological innovation in this project will assist farmers by:

- Increasing supply of fodder through the year;

- Improving dairy cow nutrition and feed management;
- Improving dairy cow and calf management;
- Providing access to appropriate technologies for safe milk production for domestic markets.

The project is centred on establishing fodder nurseries for different fodder types to supply small-scale farmers. These fodder production farmers will then trial both on-farm and forest fodder production models. The aim is to develop a commercially viable fodder supply to dairy farmers. It has been demonstrated that improving feed practices of dairy cows reduces the age for first calving, reduces calving intervals, and increases lactation periods.

Research will focus on developing the fodder model as well as supporting information dissemination about best feeding practices.

The project will also promote a range of best practices for dairy production, including improved housing and watering, the use of gender targeted artificial insemination for more effective breeding, and improved milking practices for efficiency and hygiene.

With the improved fodder and cow management practices, there is capacity to produce considerable additional milk within the existing dairy production system. Farmers will be able to diversify incomes into both fodder and milk production.

#### INNOVATION IS MORE THAN TECHNOLOGY

Organisational and institutional change in conjunction with technology transfer is key to innovation. This partnership between PT Nestle and UNBRAW underpins this innovation.

The activities of the partnership will result in increased quality and volume of milk production and a secure milk market resulting in increased profits for farmers.

This project commenced in March 2016. It aims to have a positive impact on the incomes of over 1,000 farmer households in East Java during the next two and half years.



## ARISA Applied Research and Innovation Systems in Agriculture

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ARISA is an Australian Government program, implemented in partnership with the Government of Indonesia and managed by CSIRO. ARISA aims to increase incomes of smallholder farmers in eastern Indonesia by piloting competitive agricultural innovation. ARISA tests ways to stimulate collaboration between the private sector and research institutes in applying new technologies to improve farmer competitiveness.