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Engineering Fortification Farms: Empowering Innovation of Local Farmers on Yogyakarta, Indonesia

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Abstract

In many villages on Yogyakarta people's knowledge on livestock husbandry and breeding is still traditionally implemented. In an innovative student programme called “Engineering Fortification Farms Program” training is offered to develop farmers' knowledge on livestock related themes. This programme includes mentorship for farmers, counseling their livestock, training on feed production followed by training of entrepreneurship by Bengkel Pupuk (a centre for waste product management). The implementation of these methods consists of 3 stages. The first stage is socialisation; second is implementation and third is monitoring of the programme.

As a case study this programme was implemented in the village of Hargorejo, lasting for 3 months. During this time the farmers were eager to follow any training and discussion; 85% of the farmers came early to every event. The farmers were expected to produce approximately 200 kg supplementary feed through ensiling grass, mostly King grass, straw and leaves found around the village. This silage was provided as a primary feed during dry season. and could fulfill the basic needs of their livestock and so improve the productivity.

In order to reduce the use of chemical fertilisers a further training accent was put on the use of animal wastes as organic fertiliser. Through this program the local farmers are expected to be able to fermentate feed for their cattle's nutritional supply needs during the dry season (biotechnology) independently. They can also create and manage bengkel pupuk as a livestock waste treatment facilities to improve their economy in the livestock sector. This community service programme will be able to educate farmers as a solution of livestock raising, helping farmers in feed managing problems during the dry season and optimisation of potential waste to get a profit as a result of entrepreneurship based on animal science. This community were also expected to increase the creativity and encourage the farmers to be more productive in managing forage livestock feed. In addition, this programme will give a motivation for the farmers in Hargorejo village to be independent and have a decent life.

Keywords: Animal science, biotechnopreneur, empowering, mentorship