

NO MILK TODAY

by Emanuel Shahaf

It is no secret that the Indonesian dairy industry is seriously undersized for the nation's 240 Million population permitting a milk consumption of only 7 l/capita/year. In comparison, consumption in Europe is frequently above 200 l, Singapore is 60 l and Malaysia is about 30 l. The industry is also inefficient producing only 12-20 l milk per cow per day as opposed to international milk production values that on average can range between 30-50 l.

As guest of several visionary Indonesian industrialists, I recently had the opportunity to look at local dairy operations in the Bandung and Malang areas, both centers of milk production in Indonesia. Actually, when looking at local conditions, Indonesia's performance isn't so bad but it is clear that major changes must be introduced if local milk production is expected to provide for the increasing needs of the population.

Most Indonesian milk is produced by cows kept by small farmers and the individual cowshed rarely tops 10-15 cows. Under these conditions to keep costs low, milking is performed manually and the milk collected is of poor quality, contaminants having been introduced at every stage of handling the white gold. Consequently, dairy industries that buy the milk cannot make high quality products with a reasonable shelf life and much of the milk goes towards the production of UHT milk which has great shelf life but doesn't taste fresh and most important, is very expensive. As a result the market is dominated by imported milk products, UHT milk and only here and there one finds locally produced fresh milk and its products, both often available only in the big cities.

The low productivity of Indonesian cows is the result of poor and inconsistent nutrition since the farmers make use of any roughage available and locally produced concentrate used as energizing fodder additive is of unreliable quality. In addition cows are mostly kept under inadequate conditions tied in small sheds with little room to move about. All in all the problem is one of management since Indonesian cows, mostly of the Frisian Holstein variety are quite capable of producing the quantities of milk that are commonplace in other parts of the world. The climate is adequate as well and particularly higher lying locales (like Bandung and Malang) are well suited for the production of milk.

What has to be done is clear: Milk must be produced in cow-sheds holding at least 30 milk cows (that translates into a herd of about 60 cows altogether) so that automated milking can be employed economically permitting the maintenance of minimum hygiene standards (hands-off). Cowsheds must be large and ventilated so cows can move around and do not suffer when temperatures are high. Fodder must contain sufficient energy and be of consistent quality since cows respond poorly to changes in feed and immediately reduce milk production. Fodder and water must be provided in unlimited quantities to assure proper nutrition for a high rate of milk production. And last not least, breeding records must be kept so each farmer can do selective breeding and only keep those cows whose ancestors have a record of good

milk production and successful reproduction.

There is no reason why Indonesian milk production cannot increase relatively quickly if local operators follow those rules and set up modern cowsheds according to well established principles. The knowledge is available on the open market and if applied judiciously will quickly result in considerable increases in milk production and hugely improved milk quality. The benefits to both nutrition and health are obvious and there is no doubt that these days milk production is an excellent business opportunity. The social penalty, the demise of the small scale dairy operations, can be addressed by pooling the farmer's resources: Often already organized in cooperatives, they should join forces and together set up the bigger scale operations necessary to achieve consistently good results and economies of scale.