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## Applications of Molasweet to cattle feeds in South Korea

### 1. Purpose of Molasweet Applications to Cattle Feeds

#### 1) Saving feed formulation cost

By addition of Molasweet at 150g/MT to feeds that contained less palatable and off-flavoured feed ingredients such as calcium soaps of fat (off-flavour), palm kernel meal (bitter taste and off-flavour), coconut meal (bitter taste), rapeseed meal (Indian source, off-flavoured and pungent taste), MSG by-products (off-flavour and pungent taste) and tapioca-residue by-products (sour and off-flavour), off-flavour and bitter taste of the feeds were significantly improved. As a consequence, formulation costs for cattle feeds were significantly lowered (average 6%).

If you do have a feed formula like 15% coconut meal + 8% palm kernel meal + 8% rape seed meal, 150g/MT of Molasweet is enough to mask off-flavour and bitter taste of feeds. If you have calcium soaps of fat more than 2% in your feed formula, 150 ~ 200g/MT of Molasweet should be added to your feeds. Therefore, you can easily replace soybean meal, corn and fat sources with more price-competitive but less palatable feed ingredients without any intake problem and subsequently reduce formula cost at a significant amount.

### 2. Solving the BRIX variation of molasses

Since Korean feed mills import molasses from several different countries and companies, serious variation of BRIX in molasses was the major concern to feed formulators and QC personnel due to inconsistent flavour and taste of final feed products which resulted in customers' complaints. After adding 100 ~ 150g/MT of Molasweet to feeds, such complaints were successfully solved. Therefore, Molasweet seems to be the best option for stabilization of often-varied BRIX of molasses and thus secure consistent palatability of feed products.

3. Comparison of Molasweet and sodium saccharine

At the same addition cost (Molasweet 150g/MT vs. saccharine 300g/MT) to the same feed product, cattle were easily attracted by Molasweet-added feed products (see the picture below). The trial was conducted by the well-known feed mill company, CJ, during the summer season of 2007. Almost all the complaints of lowered feed intake during the period of heat stress were successfully solved. The picture was taken 10 minutes after fresh experimental diets were offered to Holstein steers and showed preference of cows to Molasweet added-feeds compared to saccharine-added feeds. The bitter after-taste of Na-saccharine seemed to be less attractable to cattle in comparison to Molasweet. In addition, flavour factor seemed not to be ignored during the heat stress period for better feed intake.



4. Use of Molasweet in pig grower feeds

Because of high price of SUCRAM, it seldom has used for grower feeds for pigs. Two feed mill companies in Korea tested Molasweet in pig grower feeds and had a fairly good feed intake during summer season. They told me 5% increase in feed intake. They also told Molasweet boosted feed intake by 3.4% in other season too. In tradition, Na-saccharine was a sweetener for pig grower feeds in Korea. Now that the efficacy of boosting feed intake by Molasweet is such potent, Molasweet can be also good choice for pig grower feeds as a sweetener and flavour.

Written by Dr. Barry Choi (Milae ResourcesML Co. Ltd., Seoul, Korea).