

Facts Dairymen Should Know

(Continued from Page 25)

Use adequate alkaline cleaner in 110° to 120°F water. For circulation cleaning of pipelines and transfer systems, end the washing cycle with at least 110°F solution. This usually means starting at 140° to 160°F.

Rinse the equipment with clear water. Use an acidified rinse, if the water is hard.

Sanitize all equipment prior to use. This destroys bacteria which are on milk contact surfaces. Use 220 ppm chlorine or 25 ppm iodine solution and flush all surfaces.

Don't splash sanitizer, solution on the walls of a bulk tank. Let solution drain and don't rinse with clear water.

Your milking equipment needs to be as clean as the dishes from which you eat. In addition, chemical sanitizing is necessary before each use.

Failure to sanitize or once-a-day cleaning causes poor keeping quality and high raw milk bacteria counts. The source of the problem is not readily found, as everything is clean when the fieldman checks during the day.

Twice-a-day cleaning and sanitizing is the first step toward consumer acceptability of fluid milk. Good flavor and keeping quality must precede promotion to increase per capita consumption.

On Using Ground Soybeans

As a result of sharp advances in protein costs, some farmers are interested in the possibility of using ground raw soybeans as a protein supplement. This can be done for dairy cows under certain conditions.

The level of ground soybeans in concentrate mixtures for dairy cows should be limited to 25 per cent of the mix or less. Higher levels may interfere with utilization of fat-soluble vitamins in the cow.

For insurance purposes, it would be best to include 2,000 to 4,000 units of supplemental vitamin A per pound of grain mixture containing ground soybeans.

Since uncooked soybeans contain urease, an enzyme which releases ammonia from urea, ground raw soybeans should not be used in grain mixtures containing urea. They may be used, however, in mixtures fed separately to cows receiving urea-containing silages.

Sometimes heat-treated soybeans are available. If these processed beans are sufficiently low in urease content, they may be used in mixtures containing urea.

Ground soybeans have a high oil or fat content. Thus, they are relatively high in energy or TDN. This may make them an economical source of nutrients when other energy sources such as corn, corn by-products and small grains are relatively expensive.

Their high oil content makes ground soybeans quite susceptible to rancidity. Feed containing them should be mixed at intervals of one week or less. Most important, do not feed grain mixtures containing ground soybeans to calves under

four months old. Rancid fats and oils may be quite toxic to young calves.

Hammermills used to grind soybeans should be cleaned out as well as possible after each use to prevent accumulation of rancid material, which may enter feed upon subsequent use of the grinder.

Free-Choice Minerals
The ration fed to dairy cattle should be balanced for minerals as well as other items. Proper controlled-mineral feeding via inclusion of necessary supplemental minerals in the grain mixture, forage or complete ration should be practiced.

However, minerals also should be provided free-choice to more adequately meet the needs of cows fed considerably less grain than average intake for the herd, and those of cows producing at extremely high levels.

In addition, consumption of certain free-choice minerals may help to control rumen pH. Free-choice feeding also may help in meeting needs of growing heifers that require little or no grain.

One should not depend solely

on free-choice mineral feeding, since cattle have a limited capacity to balance mineral needs.

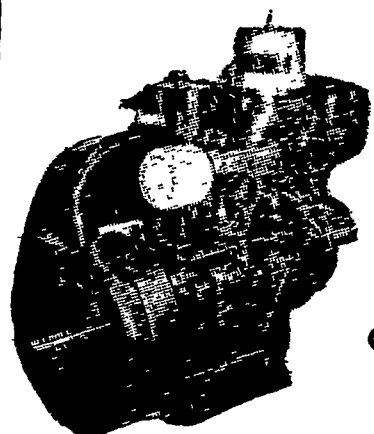
When cattle are properly fed, the intake of any single free-choice mineral should not exceed an average intake of 0.1—0.2 lbs. per head daily.

Avoid use of commercial mineral products that are excessively palatable due to over-use of palatable ingredients such as dried molasses, live cell yeast as well as other items. Proper culture and brewers' yeast. When excessive intakes occur, check ration balance, grain levels and the possibility of excessive palatability.

Limit intakes of any newly offered free-choice mineral to an average intake of not over 0.1—0.2 pounds per head daily during the first 7 to 10 days that it is made available. Excessive mineral intake of any kind during a short period of time may adversely affect animals, even to the point of death.

Do not provide minerals free-choice to mineral-starved animals. Control-feed them for a period of several weeks before offering any free-choice.

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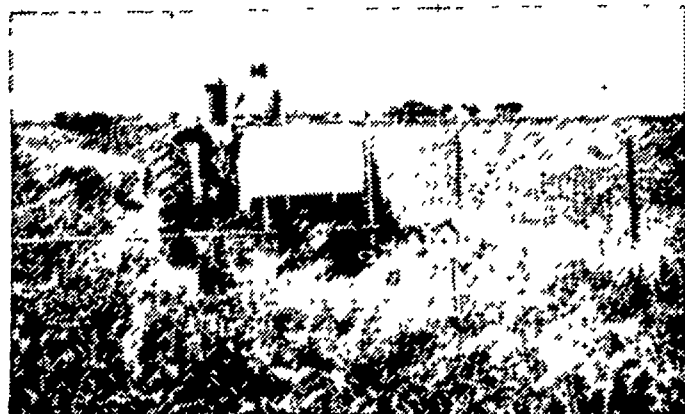
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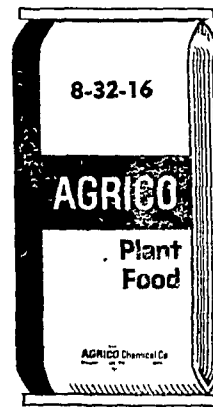
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