

# How to make TMR work at your dairy

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**UNIVERSITY PARK** — Total mixed ration can be a boon to many dairymen, but it is definitely not for every dairyman, according to Dawn Braund, director of dairy and livestock research and development for Agway.

Speaking at the Dairy Herd Management conference at Penn State University last week, Braund said, "This concept and practice is not a camouflage for mediocre managerial ability and lack of attention to details. Research and field experience indicate that TMR requires above average managerial ability."

For the dairyman who is ready to give that attention, however, Braund says the TMR concept offers several advantages, including reduced labor costs, increased milk potential and feeding ease.

Doyle Waybright, Mason-Dixon farms, Adams County, told the group he uses Total Mixed Rations for their herd from calves to dry cows, with very good results. He gave specifics of the management skills they use to make the system effective for them.

According to Braund, the TMR concept involves the complete blending of grain and forage to obtain proper balance of nutrients and bulk

density prior to feeding. This balanced feed is then offered to cows on a continuous free choice basis.

Braund said, "Each bite is balanced. The cow decides how much she will eat and how often it will eat. It is a 'casserole for cows' ready for them to eat when the spirit moves them."

There are some important management inputs which must be part of TMR for it to be a success.

"With poor management," Braund said, "a TMR program can be a disaster." Forage testing is a must, as are regular checks on dry matter content of silages.

Waybright agreed, "Testing forages is very important in our operation. We test every cutting of alfalfa and we test the first cutting several times."

Total mixing is another important factor so that there is no opportunity for a cow to select forage over grain or vice versa.

Braund noted that in traditional feeding methods grain feeding precision is limited because dairymen can't accurately predict the forage intake of individual animals. Furthermore, since cows may prefer one forage over another, they may be short on protein and overfed on energy

Grouping is another

essential for a successful TMR program. It is most important to separate dry cows from lactating cows, Braund said.

Grouping makes possible a more effective use of grain feeding, and the forage-to-grain ration can be adjusted to more fully correspond to the production level and dry matter intake capacity of the group. According to Braund, grouping can result in increased income over feed costs by at least \$50 per cow per year.

Research shows that grouping will also allow dairymen to get more milk out of first calf heifers. In one Agway trial, first calf heifers averaged nearly seven pounds more milk per day for the lactation when grouped. This amounts to about 2000 pounds more milk.

Another advantage of grouping is that groups will be smaller in size, and it will be easier to detect heats, health and other problems. Also problem cows can be treated appropriately.

Braund said a side benefit of grouping is increased reproductive efficiency, by reducing days open. This results from meeting nutrient requirements better when on a TMR program.

After separating the dry cows, Braund says the most

important factor in grouping is production levels, with some consideration given to first lactation heifers, body condition and fresh cows.

A reasonable minimum size per group is from 25 to 40 cows, depending on total herd size, barn design and milking facilities. Three production groups are easiest to work with - high, medium and low.

In production groups, the ration should be balanced to a high of five pounds higher than the group average, but no higher than 70 pounds. The maximum spread between groups should be 20 pounds.

He pointed out that high producers will eat twice as much feed as lower producers and said it is impossible to balance a ration for the highest producers and keep healthy cows. Braund stressed that the feeding must be truly free choice, so that there is feed in the bunk whenever a cow wants to eat it.

Once-a-day feeding where possible is advised for the TMR program, which will result in reduced labor time. Feeding TMR more than once a day had no effect on average milk production or dry matter intake. Feeding more frequently than once daily encouraged more cows to come to the bunk and eat

at each feeding, but cows didn't stay as long as when fed once per day. Milkfat percentage was unaffected by frequency of feeding.

When dry matter content of feed changes by more than five percentage units, the TMR mixing schedule should be adjusted, Braund noted.

In addition to the importance of testing forages, Waybright told the dairymen it is important to harvest the forages at their optimum. For Mason Dixon Farms that means harvesting at 18 percent crude protein.

"If you let it go too long," Waybright said, "you sacrifice essential protein. Dairymen need to concentrate their efforts in getting forages into the silo at their optimum."

Explaining their TMR program, Waybright said, "We find it very advantageous to feed it from day one." He said they feed 65 percent grain and 35 percent timothy hay with molasses for palatability until the calves are five months, adding "Calves accept it readily. We have had no bloating and our calves chew their cud at a remarkably early age."

In the Waybrights' program, chopped hay is fed to calves because it "helps them develop bloom faster."

Increased fiber is fed to dry cows and heifers, Waybright said.

The cows are divided into three production groups, with the highest group receiving 50 percent grain on a dry matter basis; the medium group, 35 percent grain; and the low group, 25 percent grain.

Trace minerals and vitamins are custom blended for the Waybright herd and bicarbonate of soda is supplied alongside salt. "It is amazing how they lick it up," Waybright said.

A control for flies is also fed in the ration, something which Waybright said helps immensely.

One of the biggest problems with their feeding program, according to Waybright, is the fat cow syndrome. To avoid this they monitor the groups carefully and move cows from high to medium production groups as necessary.

In a survey of 150 dairymen in the Northeast using TMR, Braund reported that 70 percent increased income over feed costs. Fifty-one percent also said they expected reduced herd health problems and no one reported an increase in health problems.

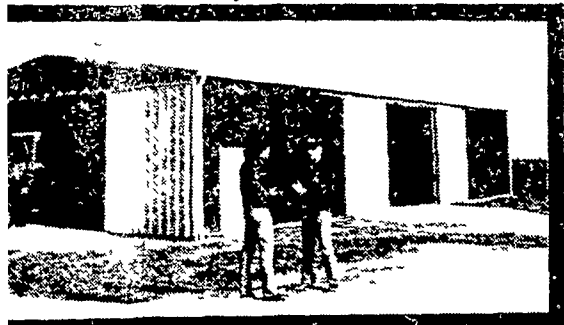
Braund said the adoption

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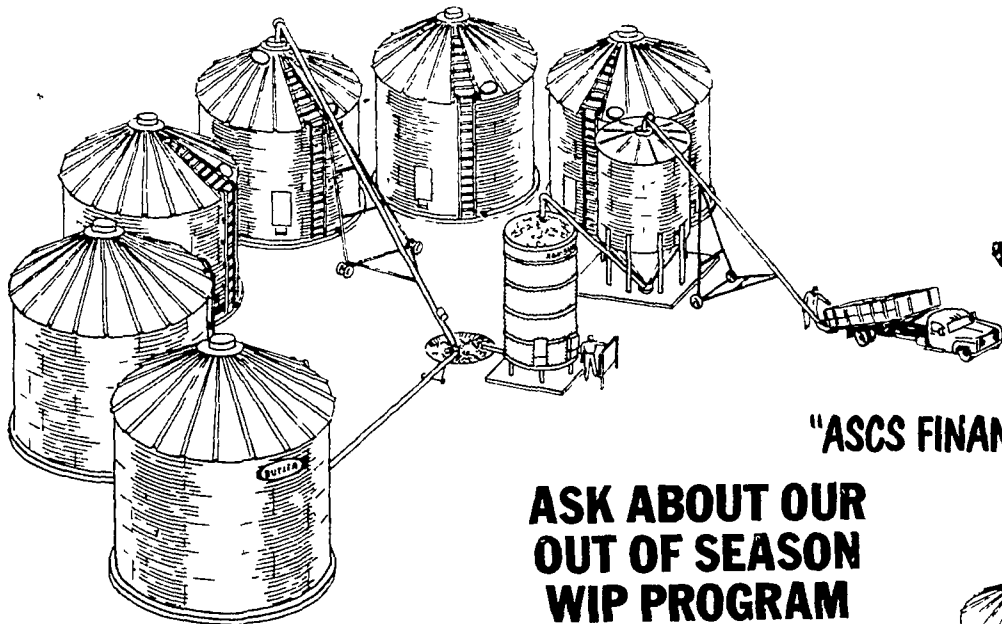
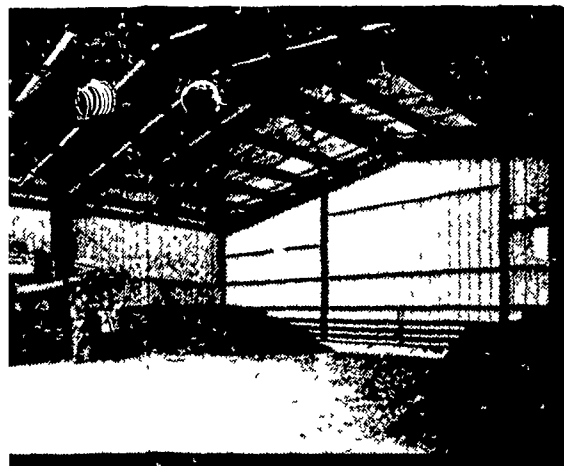
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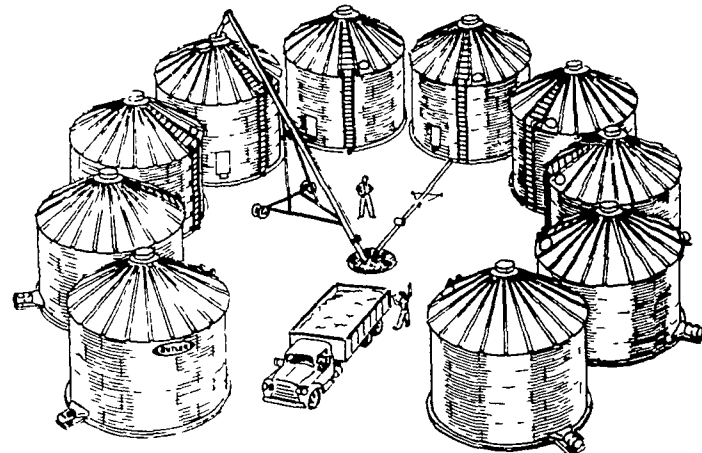
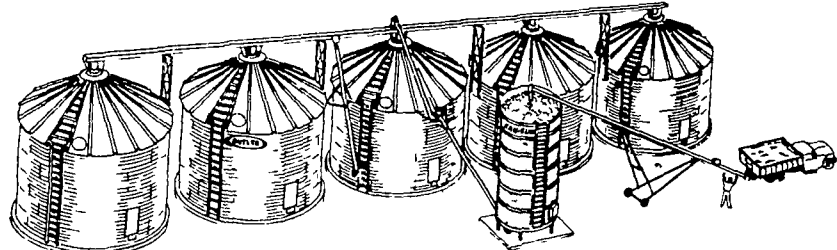


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