

# Dairy research

(Continued from Page 76) a concreted 700-foot long fence-line feed strip. The feed distribution method for all cows is by way of trucks equipped with self-unloading mixing boxes.

Except for the milking area and a hospital barn, housing facilities are of the pole and roof variety, with no walls on any side. Manure is flushed from concreted surfaces at least once a day with a phenomenal 150,000 gallons of water.

Calves are raised in an environmentally controlled barn featuring individual

stalls on a heavy steel mesh. A series of fans and ventilation tubes circulate fresh air and maintain even temperatures. Once these young replacements have been given their start in life, they are sold to other farmers under contract that "Arkavalley" will buy them back at pre-determined prices.

At a question and answer session following a tour of the research farm, the management and researchers were asked to cite their main dairy production problems at "Arkavalley."

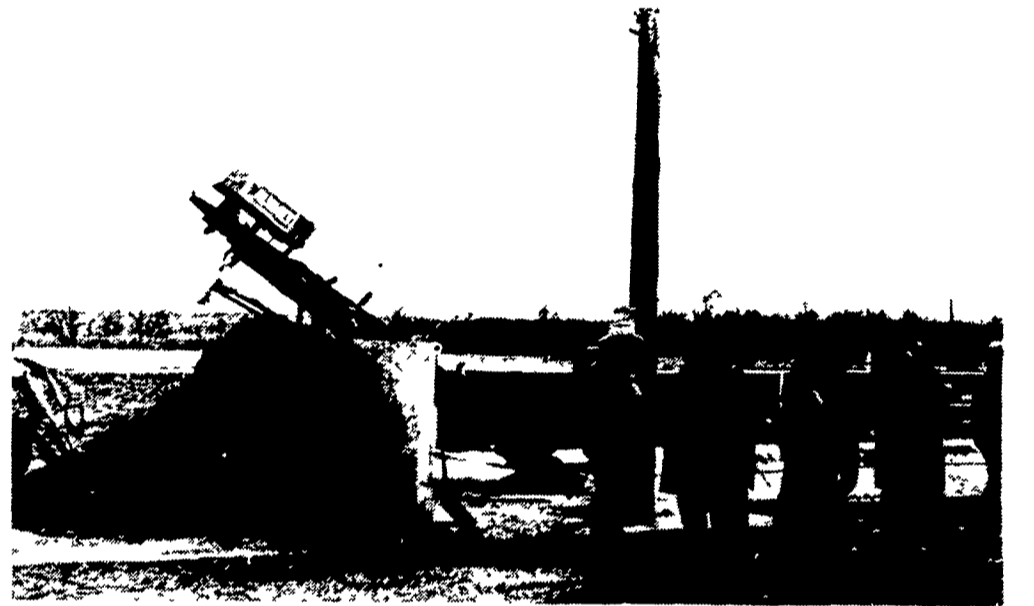
Without hesitation, the five panelists agreed that the intense summer heat was their number one concern. It reportedly cuts the cows' feed intake and hurts the reproductive cycle. The latter, in itself, was the second most serious problem. A calving interval which stood at 13.3 months as of last Jan is significantly below some previous figures but further improvement is being sought. The fact that neither hay nor corn can be raised on this soil was not cited as a "problem" but definitely as a disadvantage. It is likely that the management would not pick the same location again if they had to make that decision a second time.

There are other problems. That, from an editorial point of view, is good. Most, if not all farmers have problems and if this particular feed manufacturer is trying to find answers to them, then they must first have the problems to work with. Perhaps that is why managers here presented their conference in such a candid fashion. This part of Arkansas, for example, is not what dairymen from the Northeast or Midwest would call "pretty." It is not impressive in that sense, although the farm itself commands a definite amount of prestige. The farm is not a "show place" as such and some of the experiences here have been anything but enviable. Nevertheless, the operation is pretty much of an "open book" to visitors. At one time, for instance, a third of the cows here retained their placentas. Although nothing to be proud of, this statistic and several others which are equally poor, are pointed out to audiences. Some changes in construction and feeding have reduced that figure to 8.3 per cent. So it's not all bad; in fact much is exemplary.



Ten to 12-thousand tons of sorghum silage can be stored in this bunker silo which measures 300 feet long and 60 feet wide. It is one of three such structures (the other two are smaller) in use at "Arkavalley Farm," Ralston-Purina's dairy research center. The silage is loaded

either with a front-end loader or automatic machines designed specifically for bunker silo unloading. The material in the foreground is brewers' grain, which is mixed with the silage in self-unloading truck boxes.



Visitors to "Arkavalley" study a pumping pit near the 4½-acre lagoon, (background) from which solids are removed for eventual use as bedding

in free stalls. A pile of material is shown at left. It takes a month or more to cure it and still needs perfection, farm researchers reported.

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Some problems normally associated with dairy herds, such as poor feet, misplaced abomasums, and ketosis are almost non-existent, although serious foot problems were "overwhelming" just a few years ago. Feeding programs and equipment have been altered to better fit the program. All in all, graphs and statistics point out significant improvements between 1969 when the first cows were milked here, and 1975.

Hot summer temperatures, as stated earlier, are the number one dairy production problem in this part of central Arkansas. "Arkavalley" has tried several methods to reduce the ill effects of heat, including airplane propellers, and a fine spray of water aimed at the cows while they stand by the feed bunks. When profit margins permit it, managers redesign the roofs and supporting structures. To further facilitate air movement and cooling, 160 fans have been installed under the roofs of the free stall areas where temperatures up to 115 degrees F. have been recorded. The weather continues to be a problem, although its effects are no longer as intense. Research into the matter continues.

Production per cow also increased over the years and the farm now reports a rolling herd average in excess of 14,000 pounds of milk per head. Higher goals are being aimed for but the

(Continued on Page 78)