

Automatic Milk Vending Machines Increase Total Sales in West Va. Test

Sales of fluid milk through coin-operated vending machines averaged about 1.5 per cent of total milk sales in a study conducted in the Berkeley County (Martinsburg) area of West Virginia, the U.S. Department of Agriculture announced today. Indications, based on an analysis of all relevant factors, are that about two-thirds of the sales through milk vending machines apparently were "plus" sales. This preliminary finding indicates that introducing many milk vending machines into a market area can expand the total market for milk.

The research was conducted for almost two years by a joint team of researchers headed by James H. Clarke of the West Virginia Agricultural Experiment Station and Mardy Myers and J. Scott Hunter of the U.S. Department of Agriculture. A full report entitled "Automatic Milk Vending in Berkeley County, W. Va.," with detailed findings, will be out shortly.

The additional sales of milk as fluid milk through vending machines usually result in a higher price to producers than if it is used for manufacturing purposes and so can be a means of increasing farmers' returns from dairy products.

Milk vending machines, which had not been in use in Berkeley County for several years prior to the study period, were introduced by the milk distributors to aid the researchers in evaluating the effect of automatic vending on total milk sales. Starting in September 1955 and continuing through June 1957, a complete accounting was kept of milk through milk vending machines, principally in industrial locations and offices but also in schools and three outdoor locations. Data

were also obtained for the test period, and for the previous year, on sales of milk through all other outlets — retail and wholesale — in the area.

Sales through the vending machines were at first fairly substantial but subsequently declined in many locations. For some of the machines, a downward trend in sales was observed during most of the period of the study. For other machines, however, sales leveled off following an initial downturn. Peak sales through vending machines were almost 25 per cent of the total market sales in October 1956 when employment at several seasonal apple processing plants in the area was at a maximum. Sales at the end of the study period, in April-June 1957, represented 17 per cent of total market sales.

To supplement the sales data, interviews were conducted with a sample of plant employees having access to the milk vending machines. Results showed that 63 per cent of the employees in the plant studied bought milk from the vending machines during working hours, whereas, before the vending machines were installed only 19 per cent of the employees had bought milk from the outside to drink while at work. This is another indication of how automatic vending can increase milk sales. Adverse attitudes toward vending were not found to be a limiting factor in expanding consumption of milk through machines.

A study of the costs of operating vending machine routes was made concurrently with the sales study. The amounts of labor and other cost factors required for vending were determined and the break-even points found for various kinds of vending machine routes.

Labor Efficiency Poultryman's Greatest Benefit

UNIVERSITY PARK, June 19 — Poultrymen have benefited more by improved labor efficiency than by any other improvements, it was reported at the annual conference of the Pennsylvania Poultry Federation at the State University.

Less than three minutes of labor are needed today to produce a dozen eggs, compared with 13 minutes of labor needed for the same production in 1923, declared Dr. John M. Snyder, poultry specialist for the Beacon Miling Co. of Cayuga, N. Y.

"Management is the culprit in limiting production performance," Dr. Snyder stated. "Good management makes it possible now for a single broiler producer to take care of 150,000 broilers annually," he added.

Dr. Snyder stressed seven factors for improved labor efficiency: (1) automatic waterers, (2) automatic feeders, (3) bulk feed, (4) nest rooms, (5) handy clean out, (6) combining chores, and (7) centralized layouts.

SPEAKING ON FARM changes to integration at opening day sessions was Dr. J. C. Huttar of the Cooperative GLF Exchange, Ithaca, N. Y.

"Integration's record so far is that it will reduce your risks and losses and will also reduce your profits," Dr. Huttar stated. "If you don't like this prospect, you can integrate more processing and marketing steps under your own control, or join with others to do the something cooperatively, or you can find something else to do," he advised.

Dr. Huttar described integration by the farmer as the opposing force to specialization. He said the poultryman who produces feed grains not only decreases his dependence on a feed supplier but also picks up part of his income. The egg producer who sells eggs at a roadside stand is integrating, as well as the broiler grower who sells barbecue dinners, he added.

John L. Rainey, director of Pennsylvania's Bureau of Markets, Harrisburg, urged poultrymen to evolve a promotional program to spur the sale of Pennsylvania produced eggs and poultry products.

"WE WILL HAVE to try for a larger share of the market, even if the trying only results in holding our own share," Rainey observed. "If we do not strive to be competitive, we will be pushed aside," he cautioned.

Rainey estimated \$1,600,000 would be available for promotion if Pennsylvania's poultry and egg producers ear-marked one per cent of their cash income for promotion.

He cited the state's Food Marketing Advisory Council as helping to bring together poultry industry representatives to solve problems in promotion of poultry, eggs, and other commodities.

L. W. Cassel, director of practical research for Whitmoyer

Scientists Consider 3-Pronged Attack Against Clover Viruses

Successful control of virus diseases in Ladino and other clovers may require a 3 pronged attack involving (1) resistant varieties, (2) chemicals that quickly destroy or repel virus-carrying insects, and (3) systematically active compounds that inhibit the disease in plant tissues, according to the U.S. Department of Agriculture.

Researchers at USDA's Agricultural Research Center, Beltsville, Md., suspect that at least two of these virus diseases — alfalfa mosaic and bean yellow mosaic — known to reduce forage and seed yields of Ladino white clover by 25 to 50 per cent, may also shorten the life of the clover plants.

Field-plot studies are underway at Beltsville to determine the effect of these virus diseases on clover stand longevity. For this work, the scientists have selected a location in which the stands should not be unduly affected by insects.

RESISTANCE TO THE virus diseases is being sought as the first line of attack by Beltsville researchers E. A. Hollowell and K. W. Kretlow of the Agricultural Research Service. Other measures, such as the use of chemicals to control virus spreading insects or to inactivate the viruses within affected plants, are still in the exploratory stage. This 3-pronged attack, the USDA scientists say, will require much basic research and the cooperative effort of scientists in several different fields.

Search for virus-resistant plants has not been as fruitful as originally hoped. Some 11,000 Ladino clover seedlings have been tested so far, but none has been found resistant to either virus mosaic disease. Although these screening tests of Ladino clover are being continued, it appears that researchers may have to seek the needed resistance in other clover species closely related to Ladino. This will mean considerable difficulty, if resistance is found, in crossing plants with different chromosome numbers to obtain resistant hybrids. Very few artificial crosses of this type have been made successfully.

BOTH OF THE clover viruses occur in other legumes, and alfalfa mosaic virus occurs also in numerous weeds. Both viruses are carried to cultivated crops principally by aphids or other sucking or chewing insects. Dr.

Laboratories of Myerstown, gave a demonstration of "The Egg and You." Stressing need for greater promotion, he said the poultry industry spends only \$210,000 on promotion for each million dollars of sales, compared with \$2,200 spent by the dairy industry for the same sales volume. He urged greater use of eye and appetite appeal in advertising. He described the egg carton as the producer's salesman.

Kretlow believes that commonly-used insecticides are not effective in controlling spread of the diseases because they do not always destroy the insects before they have infected the plant.

More effective insecticides, or chemicals that repel the insects, might be useful control aids. So far, no insect repellents have been found that can be used successfully on field crops.

Development of a systemic chemical that would inhibit the viruses in clover plants is a future possibility. Two possible approaches are being considered. One is to find a compound that will inactivate the virus without harming the plant. The other is to find a material that will be taken up by the plant and enable it to produce substances from within to neutralize virus infections.

Pasture A Good Source Of Vitamins

Actively growing green pasture is an excellent source of nearly all the vitamins necessary to animal health, according to Animal Husbandman Berl Koch of Utah, however, that pasture plants are apparently very low in vitamin B12 and vitamin D but, he says the animal grazing on pasture certainly gets enough irradiation from the sun to produce adequate vitamin D in the body tissues.

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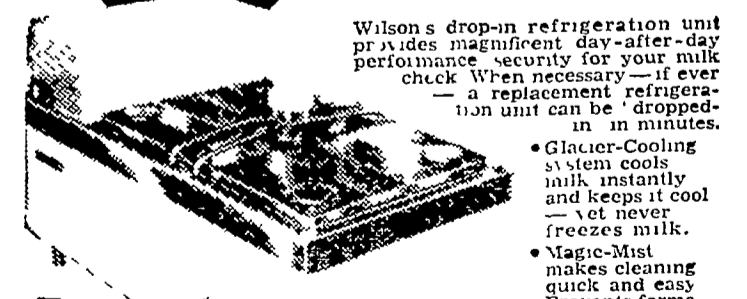
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