

New methods devised to measure milk output

NEWARK, Del. — A dairy cow worth her salt pumps out 200 to 300 dollars of fluid annual net farm income. But any barn might be harboring an unrecognized under-producer who swallows up hundreds of dollars in feed and upkeep costs for little in return.

It used to be easy to tell weather a cow was worth her keep. The farmer simply milked her and hefted the bucket onto a spring scale. A few old-guard Delaware dairy farmers still operate this way.

But in modern dairy operations, buckets have given way to automatic milking machines which

feed all the milk through pipes into a common collection tank. Thus, farmers need new ways to determine the individual cow's output. Agricultural engineers have given them at least three.

One of the officially approved milk-measuring devices that is popular in Delaware is the Milk-o-Meter. According to Delaware Extension dairy specialist Dr. George Haenlein, it resembles the water and gas meters found in homes. Plugged in between the cow and the collection tank, the Milk-o-Meter smooths the cow's squirts and spurts into a measured, steady stream. Each

quarter-pound of milk registers on the meter. A sidetracking device can remove a representative sample of the milk for bacteriological and chemical analysis. Protein and fat content are determined this way.

Milk-o-Meters cost about \$300, Haenlein estimates, but because they are portable they need not be owned by everyone who uses them. Twenty-five of the devices are owned by the three county chapters of the Dairy Herd Improvement Association in Delaware.

Farmers who participate in the DHIA testing program are visited monthly by an of-

ficial testing supervisor who brings along several Milk-o-Meters. One dollar per month per cow lets the farmer know what each cow is producing.

Results are processed monthly at the Cornell University Computing Center and returned to each farmer. They are also sent, together with paternity information, to a central computer in Washington and published twice a year. Dairy cattle breeders from all over the world study the reports and request semen from the sires of the best milk producers. This is the secret of the great advances

seen in dairy production in recent years, Haenlein says.

Naturally, these production records would be worthless of the milk-measuring devices were not accurate. For that reason, Haenlein recently brought Delaware's DHIA Milk-o-Meters to the approved calibrating center at Penn State where they were overhauled and certified accurate for the next year.

Haenlein like Milk-o-Meters because they are portable and accurate, but he emphasizes that other approved milk-measuring devices have equal merit.

One ingeniously simple device consists of nothing more than a calibrated plastic tube which measures proportionate samples of milk production. It has no moving parts to break down. Even so, severe temperature changes could warp the plastic.

Weigh jars also serve the purpose of measuring milk production and determining good and poor cows. All the milk from a given cow is collected in a huge glass jar, calibrated to measure more than 50 pounds of milk. It's simple, permanent, and not subject to warping. But it is

not portable due to its size, so it can't be shared among farmers. Furthermore, repairs must be made by specialized glassblowers.

Whichever device one chooses, a farmer should follow through on a testing program, Haenlein insists. A farmer with 150 dairy cows may wince at the thought of a monthly testing bill of \$150, but it is the only way to know which cows aren't paying for their board.

Pa. Auction Summary

(Continued from Page 14)

gilts 52.00-53.50, few 54.00 No. 1-3 200-250 lbs. 50.00-53.00; No. 2-3 190-265 lbs. 48.00-51.00, few No. 2-4 270-325 lbs. 44.00-48.00; No. 1-3 140-190 lbs. 42.00-48.00. SOWS Steady to \$1.00 higher. US No. 1-3 300-575 lbs. sows 42.00-46.00, No. 2-3 300-650 lbs. 36.00-42.00. BOARS 27.75-38.00.

FEEDER PIGS 1584. Compared to 1352 last week and 2046 a year ago. \$1.00-3.00 lower per head. US No. 1-3 20-35 lbs. feeder pigs 27.00-41.00 per head, No. 1-3 35-50 lbs. 38.00-55.00, No. 1-3 50-100 lbs. 45.00-65.00.

GRADED FEEDER PIGS 2864. Compared to 1594 last week and 1876 a year ago. Mostly \$3.00 to \$10.00 lower, spots \$20.00 lower. All sales per hundredweight. 1-2 25-40 lb. 127.00-146.00, few 149.00; 40-50 lb. 116.00-139.00; 50-70 lb. 92.00-117.00. 2-3 25-40 lb. 110.00-139.00, few 148.00; 40-60 lb. 95.00-128.00.

SHEEP: 744. Spring sl. lambs unevenly steady, spots \$7.00 lower Choice 50-110 lbs. 60.00-79.50 few, 89.00 Good 45-95 lbs. 50.00-70.00; Slaughter ewes 13.00-25.00.

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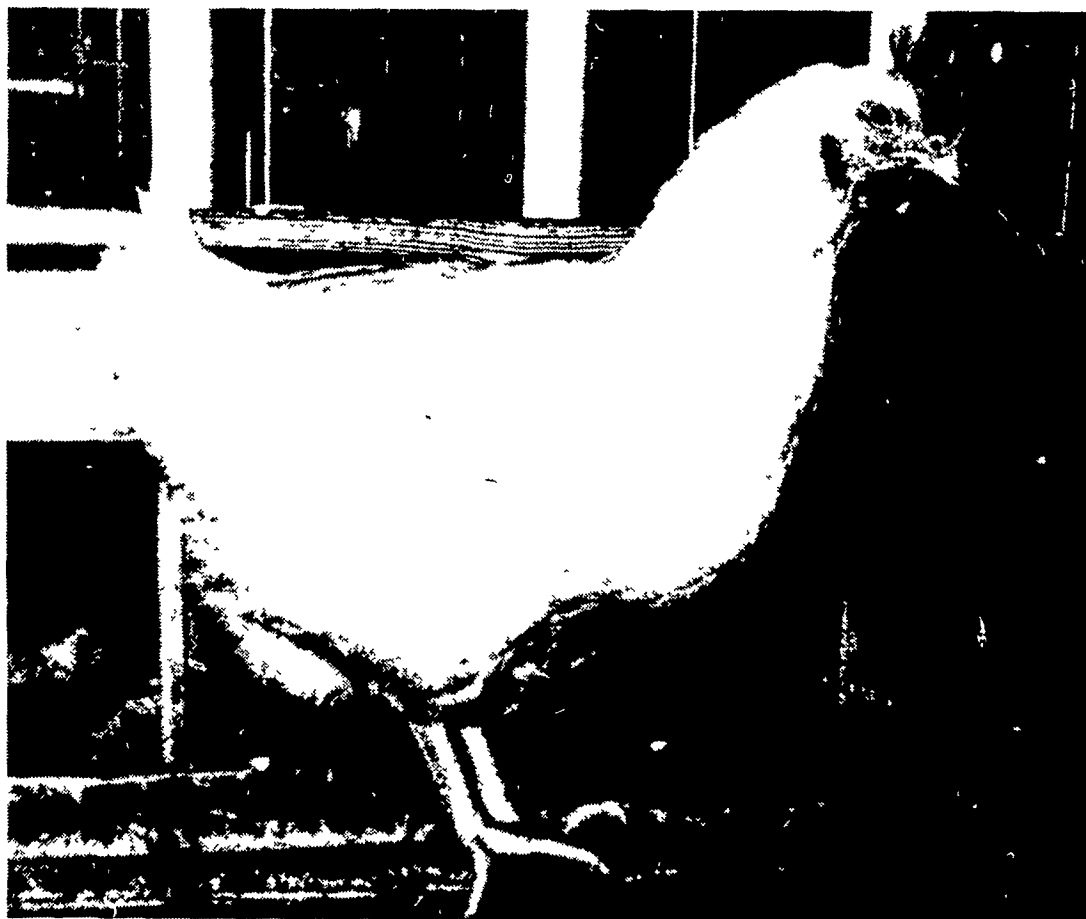
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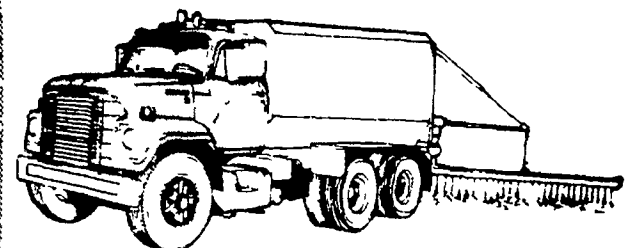
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