

Harvested Rain May Ease Water Shortage

Stored rainwater will eventually be used to ease water shortages in many parts of the world, a U. S. Department of Agriculture scientist said recently.

Lloyd E. Myers, a hydraulic engineer for USDA's Agricultural Research Service and director of the U. S. Water Conservation Laboratory in Phoenix, Ariz., spoke in Washington, D. C., at the International Conference on Water for Peace.

Myers reported on his experiments with precipitation harvesting methods in Arizona. During the past five years he has spread rubber, plastic metal foil, asphalt, and other materials on sloping desert land to catch the meager rainfall of the region and channel it into tanks where it can be used by livestock.

Some of the materials, notably liquid asphalt, have survived several years of weathering with little or no maintenance while trapping nearly 100 percent of the rain that has fallen on them. Myers applies the liquid asphalt to hillsides with a boom spray at a cost of less than 50 cents per

square yard.

Current efforts, he said, are aimed at developing cheaper waterproofing materials. He anticipates that effective waterproofing soon will be possible at a cost of less than two cents per square yard.

Myers' faith in rainfall as a source of water supply is based on simple arithmetic: a one-inch rain produces about six gallons of water per square yard, or about 25,000 gallons per acre. If enough earth can be waterproofed cheaply enough, he said, large volumes of rainfall can be harvested even in arid regions.

Myers estimated the cost of water harvested with his present techniques at about 80 cents per 1,000 gallons in low rainfall areas. This cost will be greatly reduced in the near future, he says. American consumers pay 20 cents per 1,000 gallons on the average. In some water-scarce areas, however, farmers may pay as much as \$3 per 1,000 gallons to get water for livestock.

"There are many opportunities throughout the world to obtain high-quality water from rain harvesting systems at prices lower than those now being paid," Myers concluded.

Smaller Hens Are More Profitable, Hicks Says

With poultry profit margins becoming tighter all the time, the industry has settled down to analyzing its business in fractions of a cent. It's even considering what size laying hen can make the most profit.

The smaller-sized hen is a more efficient egg producer than a larger one. When there was a shortage of meat, of course, the larger bird was more popular. But with the slip in poultry meat prices and lower salvage prices for hens, poultrymen have reexamined their programs. They have learned that with laying flocks efficient egg production is all-important.

The fact is a large hen uses more feed without producing any more eggs, says Dr. Floyd W. Hicks, extension poultry specialist at Pennsylvania State University. For instance, a 4-pound hen with an annual 50 percent laying efficiency will eat 84 pounds of feed during the year. Meanwhile, a 7-pound hen will need 107 pounds of feed to produce the same number of eggs, Hicks explains.

The bigger hen needs more

feed just to stay alive. Every time she moves, she takes more energy than a smaller bird. She needs more feed for body maintenance before laying any eggs. If she isn't getting enough feed for body maintenance, she'll just quit laying eggs and try to maintain her life.

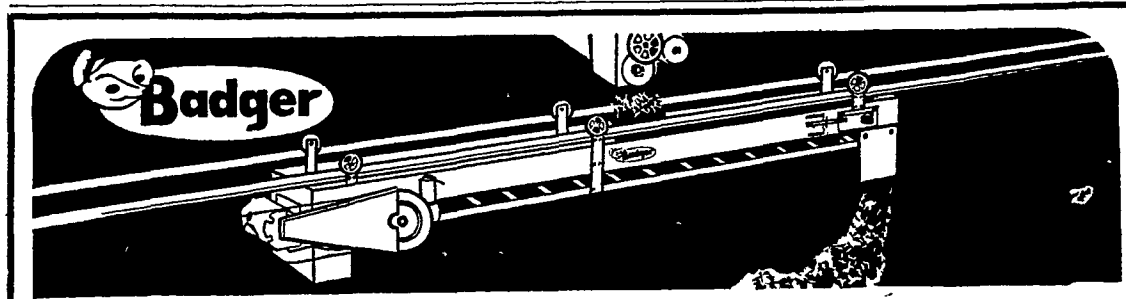
Of course, the larger type hen has a higher salvage value after her laying career is over. But the price of old hens is low.

Small hens are the best bet to produce eggs at a lower cost, Hicks concludes.

Have You Heard

(Continued from Page 15)

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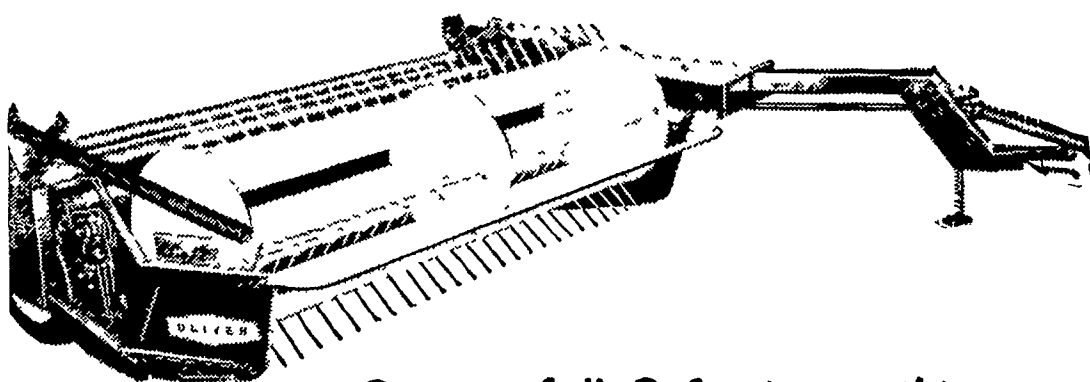
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