

## Cold Spots in Sky Can Be Used For More Efficient Cattle Shade

The possibility that "cold spots" in the sky can help livestock during the hot summer months is being investigated by scientists of the U. S. Department of Agriculture and the University of California's Imperial Valley Field Station at El Centro, Calif.

Using instruments that measure sky temperature and radiation as well as air and soil temperature, these researchers have found that a point in the north sky—at El Centro it is located about 60 degrees above the horizon—is often cooler than other parts of the sky. These north-sky temperatures may also average 20 to 30 degrees below air temperatures at ground level. Thus the sky can serve as a "cooling sink" for heat radiated from points on the ground.

Research has already shown that sheds and corrals used to shield livestock from the sun's radiant heat contribute to substantial increases in daily weight gains. Now it may be possible to design shelters in such a way that the roofs and walls will serve also to transfer heat from the ground to the cold spots in the sky. Ideally, such shelters would expose the animals to a large expanse of cool sky and at the same time protect them from

direct rays of the sun.

In experiments with a high vertical shade running east and west and with the north side made of a reflective material, such as aluminum the researchers found that the average reflection of the north sky against the wall was some 45 degrees cooler than that of the south sky, which averages about 120 degrees F. This explains why livestock often prefer to stand in the shade of high-walled buildings—particularly metal buildings—in preference to conventional shades. A disadvantage of this type of vertical shelter is that it provides only a small amount of ground shadow, compared to flat shades.

The scientists believe, however, that the principle of using a reflecting surface oriented to the north sky should be considered in the design of livestock shades. They also point out that cloud cover cuts down on the amount of heat that can be radiated from earth to sky. But in California's Imperial Valley, and in some other parts of the country the large number of cloudless days in the hot part of the year, from June through September, makes the north sky a fairly reliable "sink" for radiated heat when cooling is most needed.

## REA Reports 1,000 Loans Made For Better Rural Phone Service

The Rural Electrification Administration has made its 1,000th loan to improve and extend telephone service in rural areas, the U.S. Department of Agriculture announced today.

The Farmers Independent Telephone Company, of Grantsburg, Wis., received the 1,000th loan in the eighth year of REA's rural telephone program. It was in the amount of \$492,000 and will be used to provide modern dial service in Polk and Durnett

counties in Wisconsin.

This brings the total of REA loans for rural telephone facilities to \$382 million. These loans will enable 540 independent telephone companies and cooperative associations to provide modern dial service for more than 840,000 farm families and other subscribers in small towns and rural areas. As of April 1, 295 of the borrowers had placed in service 1,130 new dial exchanges and constructed nearly 100,000

## Farm Workday Little Shorter

The June 10 Farm Labor report of the Crop Reporting Board shows that the length of the farm workday is continuing to decline.

During the week of May 19-25, farm operators reported that they were averaging 10.7 hours a day compared with 10.9 hours in 1956 and 11.2 hours a day in 1955. Hired farm hands, during the late June survey week, are reported to have averaged 9.2 hours a day compared with 9.3 hours last year and 9.5 two years ago.

miles of telephone line.

The Grantsburg company plans to convert its system to dial operation and add facilities to serve 245 farm families now without telephones. It now provides magneto and common battery service for 752 subscribers over 260 miles of line and switching service for 104 other families in the area.

New facilities to serve the expanded system will include 65 miles of line and dial central offices at Falun and Trade Lake. The Grantsburg exchange building will be remodeled to serve as headquarters for the system and of provide space for installation of dial facilities. Of the existing line, 37 miles will be retained in place, 168 miles will be rebuilt and the remainder retired.

## Slightly Smaller Meat Supply Should Help in Overall Consumption

CHICAGO — A slightly smaller meat production this year than last still will give consumers plentiful supplies at attractive prices, a meat industry expert indicated today.

Wesley Hardenbergh, president of the American Meat Institute, added that, although reduced in volume, the nation's meat output is likely to be second only to the record production of 1956. He addressed the 34th annual meeting of the National Live Stock and Meat Board.

He said production of meat so far this year has been about 4

per cent below the like period of 1956. A decline of 9 per cent in pork output will chiefly account for the lower total for the year, he said.

Price-wise, Hardenbergh continued, most livestock farmers are benefiting from present markets. In the week ending June 8, steers sold from 9 to 14 per cent higher, cows about 19 per cent higher, and hogs around 15 per cent higher than the same week a year earlier. Only spring lambs are lower in price. Marketings of sheep and lambs for the rest of 1957 are expected to be a little below last year.

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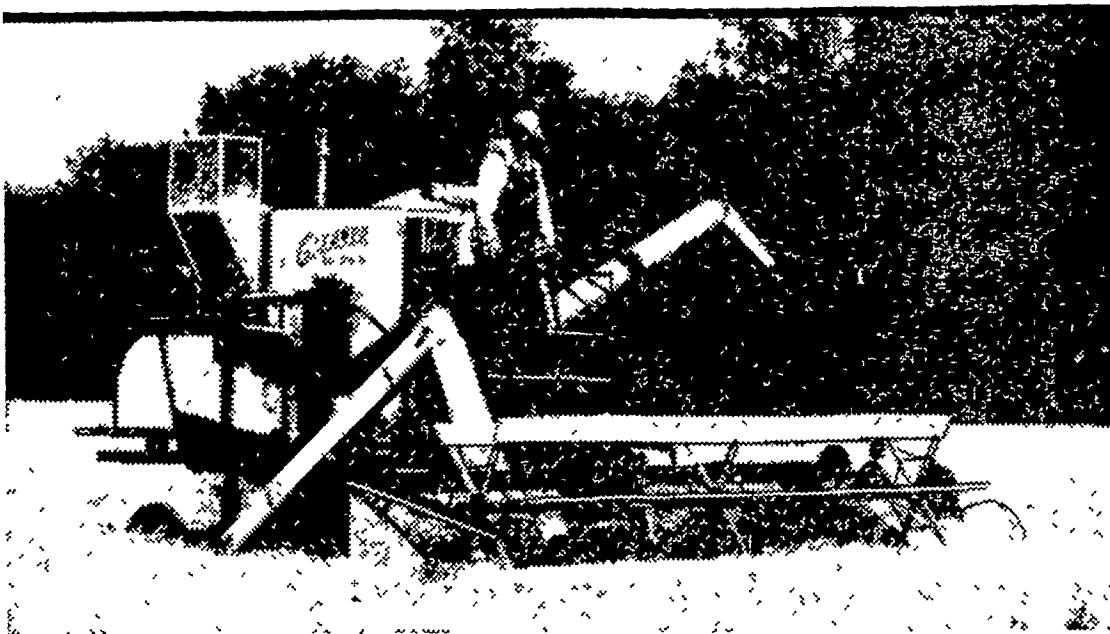
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