

ANIMAL HUSBANDRY

Careful Feeding Obtains Larger Crop of Calves

► BY FEEDING medium-energy rations to heifers just before they give birth, more calves survive. When heifers are fed on a high-energy ration, they can lose more than half their offspring at birth.

This suggestion to help heifers calving for the first time resulted from research at the Beef Cattle Research Station, Fort Robinson, Nebr., operated by the Agricultural Research Service in cooperation with the Nebraska Agricultural Experiment Station.

Heaviest heifers should be chosen for mating and breeding, Dr. James N. Wiltbank reported in *Agricultural Research*, Feb. 1963.

Less than 15% of the heavy heifers had trouble calving, whereas more than a third of the small heifers needed help, had still births or experienced afterbirth difficulty.

Another bit of advice to cattlemen is to breed heifers to bulls that tend to sire small calves. A third of the heifers giving birth to calves weighing more than 80 pounds at birth had a hard time, but only a tenth of the heifers producing smaller calves had difficulty.

• *Science News Letter*, 83:164 March 16, 1963

ANIMAL HUSBANDRY

Animals Grow Faster in Controlled Temperatures

► ANIMALS also like to be pampered.

In climate-controlled laboratories, chickens grow faster, pigs produce more meat on their bones, and sheep have more lambs.

Chickens grow fatter when they are comfortably settled with the temperature and humidity most favorable for them—although they eat no more feed than other chickens in a normal climate.

Poultry scientists at the Ray W. Herrick Laboratories of Purdue University, Lafayette, Ind., can now produce one pound of chicken for every two pounds of feed, and move a chicken from the incubator to the market in eight weeks.

In special rooms built to determine the influence of temperature, humidity and light upon the food requirements of chickens, the same nutrients were given to chicks in two separate environments.

The chicks in both laboratories had the same genetic background and were hatched under similar conditions. The nutrients studied to date include protein, sulphur, amino acids, calcium, phosphorus, iodine and thiamine.

Pigs seem more at ease in a climate of 60 degrees Fahrenheit than at other temperatures, scientists found, and convert their feed faster to meat on their bodies. In another experiment, the reproduction rate of lambs was increased by temperature control to such an extent that possibly a ewe could produce two lamb crops a year. Birds in an 85 degree Fahrenheit environment were found to grow at 80% of the rate of those in a 70-degree Fahrenheit climate.

Climate influences almost every event that characterizes the behavior of living organisms, Purdue scientists are finding in their controlled-climate experiments. Reproduction processes can be changed, as well as growth and physical productivity—even the learning rates and mental productivity of animals and men.

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AGRICULTURE

Grants Made for Soybean And Cottonseed Research

► U. S. SOYBEAN varieties for making fresh tofu, a protein- and oil-rich food of Japan, will be evaluated by the Japanese under a two-year grant.

Grants have been awarded to institutions in India and Japan to finance development of new uses for soybeans and cottonseed oil, the U. S. Department of Agriculture announced.

Japan bought more than 43 million bushels of U. S. soybeans in 1961, but potential sales of soybeans to Japan may be 90 to 100 million bushels.

Preliminary studies by USDA scientists have shown that different soybean varieties produce tofu varying in color, texture, coagulation properties, and yield.

Under the grant, the best of more than 36 U. S. varieties for making tofu will be selected. The work will be done by the Japan Tofu Association, Tokyo.

A five-year grant to India will finance research on improving alcohols made from the fatty acids of cottonseed oil which are used to control water evaporation from the surfaces of lakes and reservoirs.

Several compounds developed in the United States have retarded evaporation when applied to water surfaces in a thin monomolecular film, but they could not withstand the effects of wind, dust, and temperature.

Scientists at the National Chemical Laboratory, Poona, India, will seek to develop derivatives from cottonseed oil that will reduce evaporation, yet remain stable on the water's surface.

The research grant is equivalent to \$93,246 in rupees.

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NECROLOGY

Hallie Jenkins Dies After Long Career

► MISS HALLIE JENKINS, 64, sales manager for newspaper services of SCIENCE SERVICE since 1926, died at the Washington Hospital Center March 4 after a short illness.

Widely known among American newspaper editors for more than three decades, Miss Jenkins played a significant role in the spread of science coverage in the daily press. Beginning the introduction of science reports into the columns of the leading newspapers at a time when there was little press interest in science and technology, she helped the rise of science understanding among the public.

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Questions

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ENTOMOLOGY—What insect has been imported from Israel to help insect control? p. 170.

MEDICINE—What do most doctors believe is the cause of atherosclerosis? p. 163.

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