

Greater Efficiency, Cooler Shade In Summer Likely with Shelters

WASHINGTON — (USDA) — Farmers will pay farmers to build livestock shelters with an eye to, low cost construction, better operating efficiency, and — especially in the South — keeping animals cooler in summer, says a research engineer of the U. S. Department of Agriculture. Harry L. Garver, farm-buildings specialist of USDA's Agricultural Research Service, advises farmers to think of new livestock shelters and other service structures as tools — designed to do the job on hand, flexible enough to be easily adapted to changes in farm operations, and low enough in cost to be torn down and replaced by more suitable buildings, if that becomes desirable.

Slave to Four-Tined Fork

"Some old stone barns," he points out, "may be beautiful monuments to the past, but too often they wall in the farmer with out-moded methods, making him a slave to the four-tined fork and to many arduous and unloved chores."

Besides providing greater efficiency at low cost, livestock shelter of the future will be designed especially to help animals maintain high productivity during hot weather, Garver believes. Citing research that shows the value of cool shelters, he sees a trend in farm-building design toward insuring optimum summer comfort, with less emphasis on keeping mature animals warm in winter. Very young livestock and poultry

must continue to have proper protection against cold.

Garver points out that dairy cows can stand fairly cold weather but are quick to react to heat. Milk flow in Jerseys declines little until temperatures get down to about 25 degrees F. Most well-fed Holsteins produce well at temperatures as low as 5 degrees F. But feed consumption and milk production begin dropping off rapidly in Holsteins above 75 degrees and in Jerseys above 80 degrees. At 105 degrees F, eating and milk flow virtually stop in both breeds.

Cuts Beef Cattle Gain

Hot weather also cuts down on gaining rates in beef calves, Garver points out. Experiments by the Missouri Agricultural Experiment Station show that Shorthorn calves particularly, and Santa Gertrudis calves to a lesser degree, gained more when kept for a year in a 50-degree constant-temperature chamber than they did in an open shelter. Calves maintained the year round at a temperature of 80

New Holland Machine

Public Relations Cited

For the third consecutive year, the New Holland Machine Co. has been cited nationally for its public relations program by the American Public Relations Association.

Alex Corson, press relations manager, received the award at a dinner in Hotel Statler, Washington, from James L. McWithey, chairman of the awards committee.

Based on service given community projects, the New Holland award cited the Community Chest, Pennsylvania Economy League, Americans for the Competitive Enterprise System, Lancaster Symphony Orchestra, and the Lancaster Airport Authority.

Two Injured in Auto-Buggy Crash

Two children of Titus Zimmerman, R2 Ephrata, were injured when a car crashed into the buggy they were driving on Route 222 south of Akron Saturday night. The buggy was demolished, and Aaron Zimmerman, 19, was hospitalized. His sister, Annie, 19, was treated at the scene and returned home.

It was reported the couple stopped at a stop-sign and started to turn into the highway when struck by a car driven by Paul Z. Musser, R1 Ephrata.

degrees F. gained less than those in open shelter.

Research indicates that even simple steps taken to keep cattle cooler in hot climates will pay dividends. Best shelter against summer heat, Garver says, is a shaded corral fenced by wire, especially if surrounded by green vegetation. One of the most effective shade materials is hay spread on a slatted canopy about 12 feet high. High board fences and broad surfaces of buildings near corrals should be avoided, since they reflect and re-radiate substantial amounts of heat to cattle, even when they are standing under shade.

Shelters built so they can be opened to the cooler northern sky in summer — and to available sun on the south side in winter — can be economical and effective in the South. Garver suggests a pole structure, with straw spread on the roof and bales of hay or straw forming the three closed sides, as one way to provide excellent shelter at low cost in mild climates.

Hogs Prefer 60 Degrees

University of California studies show that pigs weighing 100 pounds gain an additional 100 pounds on less feed when they are kept at about 70 degrees F than at other temperatures. Hogs weighing around 200 pounds use feed most efficiently at 60 degrees F. The amount of feed saved at these optimum temperatures, Garver says, is enough to pay for good pig housing in a fairly short time.

Research at USDA's Agricultural Research Center, Beltsville, Md., has demonstrated that egg production is highest from hens at about 55 degrees F. and 70 per cent relative humidity, but temperatures anywhere between 40 degrees and 70 degrees F are generally satisfactory. Below or above those limits, egg-laying declines. At 95 degrees F, birds show decided distress and egg production practically ceases.

With research results such as these available, Garver says, farm-building designers are likely to make livestock shelters for summer use more open than in the past, especially for the South, and will undoubtedly give more attention to provision of cool shade for animals in hot weather. Increased use of fans and evaporative surface cooling, and possibly some use of refrigeration-type equipment, are likely in future livestock buildings.

Beef Cattle Gains

In tests by the California experiment station, beef cattle in a corral equipped with a fan gained a pound more per day than cattle kept under similar conditions without fanning during 3 summer months in 1955, when daytime temperatures often climbed above 100 degrees F. Cooling the drinking water for these animals from around 90 degrees, the summer temperature of irrigation water in the area, to 65 degrees F. also proved beneficial.

Design emphasis on low-cost construction, on more efficient operations — including increased use of power equipment — and on flexibility is already showing up in new livestock shelters. Modern buildings for loose-housing of dairy cows are good examples of the trend toward openness, low cost, and flexibility.

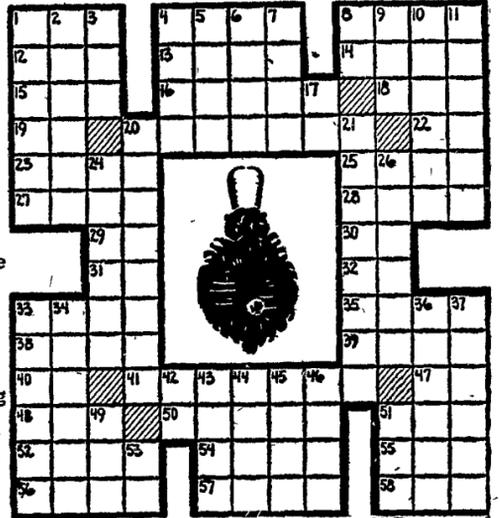
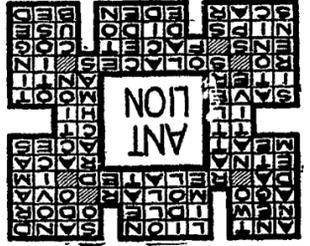
Loose housing readily permits changes in dairy herd size, or a

WEEKLY CROSSWORD PUZZLE

Insect

- HORIZONTAL**
- 1,4 Depleted insect
 - 8 Its larvae hide in
 - 12 Recent
 - 13 Unemployed
 - 14 Scent
 - 15 Past
 - 16 Grinding tooth
 - 18 Eggs
 - 19 District attorney (ab.)
 - 20 Connected
 - 22 Not (prefix)
 - 23 Volcano in Sicily
 - 25 Worthless (Bib.)
 - 27 Flesh food
 - 28 Playing cards
 - 29 Trinity term (ab.)
 - 30 Copper coin (ab.)
 - 31 Ilinium (symbol)
 - 32 Colloquial greeting
 - 33 Preserve
 - 35 Disputed
 - 38 Passage in the brain
 - 39 Opposed
 - 40 Artificial language
 - 41 Comforts
 - 47 Preposition
 - 48 Abstract being
 - 50 Phase
 - 51 Tooth on a wheel
 - 52 Bites
 - 54 Queen of Carthage
- VERTICAL**
- 1 Wreath
 - 2 Nullify
 - 3 Number
 - 4 Fruit
 - 5 Image
 - 6 Spanish jug
 - 7 Tidy
 - 8 Thus
 - 9 Stir
 - 10 Beginner
 - 11 Plays
 - 17 Concerning
 - 20 Snakes
 - 21 Greek coins
 - 24 Inherent
 - 26 Movement
 - 33 Shriill whistles
 - 34 Unaccented
 - 36 Indolent
 - 37 Colored slightly
 - 42 Belonging to
 - 43 Burden
 - 44 Tart
 - 45 Grant
 - 46 Famous
 - English school
 - 49 Health resort
 - 51 Young bear
 - 53 Older (ab.)

Here's the Answer



shift from dairy farming to beef cattle with no changes except remodeling the milking room for storage or other use. Portable hog houses and farrowing crates can be moved into loose-housing sheds when required by cold weather. With a few portable pens and fences, the sheds can be easily adapted for lambing, and they also make excellent shelters for outdoor chick brooders. On the other hand, if the owner sees more profit in fruits and vegetables than in livestock, he can readily convert his loose-housing into packing sheds.

Survey finds consumers most optimistic since 1949.

PETERBOROUGH, N. H. — George T. Pack, Wrightsville, Pa., is the owner of two registered Guernseys that have recently completed official production records in the Advanced Registry division of the American Guernsey Cattle Club.

Innasfree Cherub's Eloise, a five year-old, produced 15,265 lbs of milk and 730 lbs of fat in 365 days. She was milked three times daily. This production represents approximately 7200 quarts of high-quality milk.

Lauxmont Maxim Pique, a senior four year-old, produced 12,498 lbs of milk and 676 lbs of fat in 365 days. She was milked three times daily. This production represents approximately 5800 quarts of high-quality milk.

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