

USDA Study to Probe Energy From Manure

Two current environmental problems—need for more energy generation and to return used resources back to environment in usable forms—will be studied at Tennessee State University, Nashville.

A \$59,610 grant awarded by the U. S. Department of Agriculture's (USDA) Cooperative State Research

Service, will allow a year's study of a complete disposal-recycle scheme for agricultural solid wastes.

Animal manure and farm crop clippings will be decomposed in "anaerobic digesters"—air tight tanks—in varying mixtures, to determine the best mix for decomposition and methane gas production. Resulting gas could

be used in place of natural gas or gasoline, researchers say. Sludge produced could be used for fertilizer.

Scientists expect the study to give information on amounts of useful fuel and amounts and kinds of sludge produced. Adapting a "bio-gas" process used in India, the anaerobic conversion of manure to methane may show whether small farmers might practically use the process

science. Experimental analyses will be performed in the water and waste-water laboratories at Tennessee State University and Vanderbilt University. The Environmental Protection Agency is cooperating in the study.

Project leaders for the study are Dr. Lilia Ann Abron, assistant professor of civil engineering, and Dr. Roland Norman, professor of animal

Free Stall

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realize that they will fail from time to time, regardless of what the salesman may have said and who may have manufactured it. A good dairy operation must run smoothly at all times, so it's important to think about back-up methods. Feeding silage, for example. The same holds true for washing, milking and in some cases, scraping the barn. Here again, the operator of this new system is not nearly as flexible as his neighbor in the "old" stanchion barn. It is a good idea to have a standby generator on any

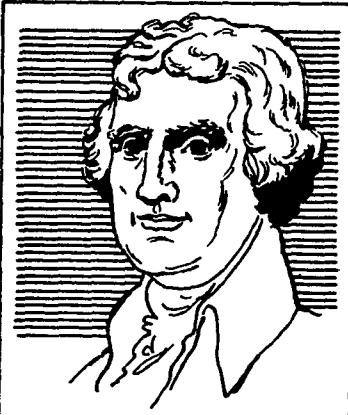
farm, especially those which are highly mechanized.

Every free-stall barn which has a milking parlor adjoining it must have a few gates strategically placed so that cows can be crowded into one holding area at milking time. These gates should not interfere with scraping operations when cleaning the barn by tractor and blade. If it is impossible to design the barn so that gates will swing out of the way completely, perhaps they could be suspended overhead.

There are numerous safety precautions to keep in mind. The hazards of slipping have already been mentioned. Attention should be given to the location of electrical switches, motors, machines, augers, and so forth. All switches should be placed so that no animal can possibly make contact with it. Preventing injuries to livestock and damage to equipment is something which is overlooked on many blueprints for free-stall barns. Mechanized feeding facilities should also be protected from bad weather. Too, with a herd of loose cows confined indoors, it may be necessary to keep your barn lit at night.

Free-stall barns and milking parlors acquired their place in the dairy business because of their efficiency, which is especially important to commercial operators. They are here to stay. Conventional dairy operations are known for their flexibility and the resulting individual management possibilities - an important consideration for the breeder. They are by no means a thing of the past. Modernization

American Viewpoints

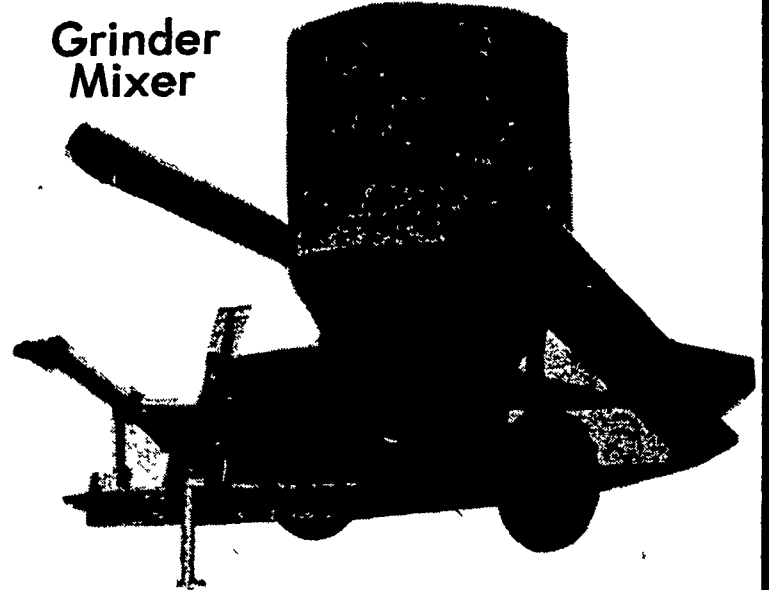


"Error of opinion may be tolerated where reason is left free to combat it."
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does not necessarily mean going to free stalls and a milking parlor. It is up to the individual dairyman to decide what he wants and needs.

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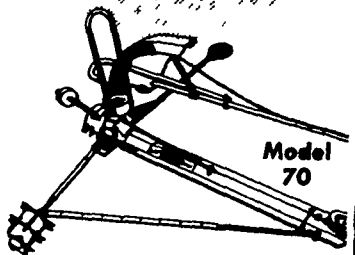
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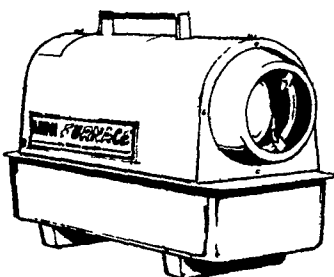
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