

Here are consumer tips for alcohol still buyers

WASHINGTON, D.C. — It can be a matter of life or death. A faulty alcohol still can kill a person in different ways, not the least of which is an explosion.

That's one of several reasons why a farmer or cooperative setting up an ethanol distillation plant should require the contractor or manufacturer to put up a performance bond and sign an agreement guaranteeing the buyer against loss because of defects in design, equipment, materials or construction.

Buyers also should have tangible evidence a plant will work — such as watching it produce ethanol over a two-day cycle.

This advice comes from U.S. Department of Agriculture officials who point to news reports on fast-buck energy 'artists' trying to sell stills that have never been tested and may not produce fuel ethanol.

"We expect USDA will be giving loans for rural production of alternate fuels by systems of modest size, cost and design," said Deputy Secretary of Agriculture Jim Williams. "We want to help on-farm producers get into business but not before they have carefully studied it and prepared themselves to overcome potential problems."

"It can be exciting — in the 'forefront' of energy science and technology, and it also can be frustrating and time-consuming. But farmers who take time to study and plan carefully are not wasting time."

Instructions issued to state and county loan officers by USDA's Farmers Home Administration on processing FmHA loans for alcohol or methane plants give details on guarantees that should be written into construction contracts.

Samples of wording for guarantees are available from FmHA offices.

FmHA has about \$10 million this fiscal year for direct loans to farmers or rural groups who can't obtain credit elsewhere to set up ethanol or methane plants. FmHA also is authorized to guarantee as much as \$100 million in business-and-industry loans to potential ethanol or methane producers by Sept. 30.

Assistant Secretary of Agriculture Alex Mercure, whose duties include supervising FmHA, said FmHA regulations state that when a "custom" plant is under consideration, its design should be based upon "actual operation history of existing units."

"Borrower-constructed projects must have close guidance and supervision by a qualified engineer," Mercure said. "This guidance can be provided by a state university engineer or a private engineer."

"As for packaged plants, any performance certification should be based upon at least a 60-consecutive-day test period in which all process inputs, outputs and operating times are certified by an acceptable testing entity or recognized engineer."

Mercure said some of these systems may be designed by private engineers or engineers from a land grant university who do not provide guarantees and insurance.

"Any absence of bonding and insurance places more responsibility upon FmHA officials and requires close scrutiny of any proposed development," he said.

Weldon Barton, USDA's Office of Energy director, said safety features are crucial. One concern is flammability. Some people don't realize that an alcohol flame is colorless, hence not easily spotted.

Barton said farmers and others might well treat alcohol as if it were as dangerous as gasoline and thereby take adequate measures against ignition of ethanol leaks, ethanol fumes or grain dust.

For example, if electric pumps are used, their motors should be explosive-proof — fully enclosed. Equipment should be grounded to prevent static electricity.

At least one recent fatality occurred when a still built by a farmer exploded beside him. Another fatality resulted when a plant operator removed a protective cover from an observation point and breathed in so much carbon dioxide that he lost consciousness and fell into a fermentation vat and suffocated.

"Vats should not be put in closed buildings," Barton said. "Such buildings should be open at the top and at one side. No one should enter fermenting tanks, beer wells or stillage tanks that are not adequately vented."

Two manuals are available with useful information on safety and other matters. One is "Small-Scale Fuel Alcohol Production" — stock number 001-000-0412-0 one produced under contract with USDA and available for \$6 per copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20201.

The other is "Fuel from Farms,

A Guide to Small-Scale Ethanol Production," available from the Technical Information Center, U.S. Department of Energy, P.O. Box 62, Oak Ridge, Tenn. 37830. It lists a number of other safety precautions, such as:

Never smoke or strike matches around ethanol tanks, dehydration areas, distillation columns or condensers.

Never use metal grinders, cutting torches, welders and related equipment near systems or equipment containing ethanol. Flush and vent all vessels before performing any of these operations.

Install, regularly maintain and check safety boiler "pop" valves set to relieve when pressure exceeds maximum safe pressure of a boiler or its delivery lines.

Adhere strictly to boiler manufacturers' operating procedures. If a boiler's pressure will exceed 20 pounds per square inch (psi), it should be certified by the American Society of Mechanical Engineers (ASME). Maintain continuous operator attendance during boiler operation.

To prevent scalding from steam, place baffles around flanges to direct any direct steam jets away from operating areas. Use welded joints in all steam delivery lines. Insulate steam delivery lines to prevent contact burns.

Give special handling to bases and acids, many of which are dangerous. For example, concentrated acids never should be stored in carbon steel containers. Note and adhere to other precautions for such materials.

One potential problem sometimes overlooked, according to Don Fink of USDA's Office of Energy, is when components from different technologies are mixed. They aren't always compatible. As

an example, he recalled an ethanol plant built with valves from a former dairy to handle movement of fluids. "They 'froze', plugged solid because some ethanol plant fluids contain a high percentage of solids. Valves in alcohol plants must be able to handle heavy fluids."

Also troublesome for a beginner is the question of how to find plans for building a trustworthy distillery plant for a farm or farm cooperative, Fink said. Because of wariness about competing with private industry and about rapidly changing technology, state and federal agencies don't make the few existing plans available.

Considerable information is available, however, from the National Gasohol Commission at 521 S. 14th St., Suite 5, Lincoln, Neb. 68508; the National Center for Appropriate Technology (NCAT), P.O. Box 3838, Butte, Mont. 59701, and in major libraries. Loan information is available from FmHA offices.

Officials of NCAT, funded by the U.S. Community Services Administration — a federal agency — say they hope to have a demonstration distillery in operation at Butte by the end of this year. The gasohol commission has names of responsible engineers and manufacturers plus technical data.

The manual on "Small-Scale Fuel Alcohol Production" says four types of insurance are needed by any producer. Insurance rates vary from company to company and state to state. For estimation purposes, it listed the following rates: General Liability, \$500,000 coverage should cost 65 cents per \$100 payroll; Product liability, \$1 per \$100 sales; Workmen's compensation, \$4.93 per \$100 payroll; and Fire and extended coverage, 80 cents per \$100 sales.

USDA asks farmers' cooperation to control PRV

NEW YORK, N.Y. — U.S. Department of Agriculture veterinary officials are urging producers to help halt the spread of pseudorabies by properly disposing of animals that have died from the disease.

Pseudorabies is a herpes virus disease of swine that also affects cattle, dogs, cats and some wild animals such as skunks and raccoons. In swine, death rates decrease from almost 100 percent in newborn pigs to just a few deaths in older hogs. In other species, the disease is most often fatal and is one of the cruelest deaths an animal can suffer.

"An increasing number of states reporting confirmed cases of pseudorabies in swine are also reporting increases in the number of cattle deaths due to the disease," said James Downard, senior staff veterinarian for swine diseases of USDA's Animal and Plant Health Inspection Service.

"Improper disposal of dead baby pigs during an outbreak has caused the death of cattle and dogs on a number of farms," Downard said. "Too often, dead pigs have been dumped into the manure spreader and disposed of in the manure spread on nearby pasture or cropland."

Dead animals should be sent to rendering plants, incinerated or buried properly. Dogs and wild animals can dig up a carcass if it is not buried deep enough, he said.

During 1980, Downard said, there were 1,217 laboratory confirmed cases of the disease in 24 states. "However, tissues or serum from many clinically diagnosed cases are not submitted for laboratory confirmation," he said.

Over 80 percent of the cases reported in 1980 came from six states — Iowa 534, Illinois 131, Nebraska 127, Missouri 79, Indiana 76 and Minnesota 69.

APHIS revokes N.J. produce firm's license

NEW YORK, N.Y. — Wan-namelon, Inc., Newark, N.J., had its produce trading license revoked effective April 8, for failing to pay promptly for \$344,596 worth of fruits and vegetables the firm purchased.

USDA's Agricultural Marketing Service, which licenses produce firms under the Perishable Agricultural Commodities Act, had charged the firm with failing to pay the full agreed purchase price for 131 lots of produce purchased from July 1979 through May 1980.

Charles Brader, marketing official with AMS, said the firm had the opportunity to answer USDA's charges, but failed to respond.

USDA's Administrative Law

Judge John G. Liebert ruled that the firm had committed willful, repeated and flagrant violations of the act.

Under Liebert's order, the firm may not conduct business subject to the act until April 8, 1983, and then only if a PACA license is obtained. The firm's officer, director, and major stockholder, Stuart Cutler, may not be employed by or affiliated with any PACA licenses until April 8, 1982, and then only if the employer posts a surety bond and USDA approves.

Under PACA, all interstate traders in fresh and frozen fruits and vegetables must be licensed by USDA. USDA is authorized to suspend or revoke a trader's license for violating the act.

Give Eggs a Break

MINNICH SALE CANCELLED

The sale for Clifford & Joanne Minnich scheduled for May 7, 1981 which appears on pg. D29 of this issue has been cancelled.
Earl Buffenmeyer, Auctioneer.

"WALT" CHISSOM ESTATE AUCTION

DOZER, EQUIPMENT, SHOP TOOLS, HORSE DRAWN VEHICLES SATURDAY, MAY 9 11:00 A.M. WALLACE, N.Y.

Sale at the farm located in "Bloomerville", just off rte. 415 1 mile south of Wallace or app. 3 miles north of Avoca. To settle the estate of "Walt" Chissom, selling without reserve, the following:

EQUIPMENT:
1959 I.H. TD-9 diesel dozer with 9½ ft. manual angle blade, rebuilt motor and tracks, excellent condition! A.C. WD-45 diesel n.f.e. tractor; early J.D. "A" n.f.e. tractor (ser. 462402) with steel lug wheels; early J.D. "B" (ser. 45920) on steel lugs; 1970 Chevy C-50 truck, 5 sp. with 2 sp. axle, with log bunks; I.H. 1959 farm truck with hoist, no body; I.H. 1955 R-120 pick-up (cracked block); J.D. trailer type boom log skidder; 2 section harrow; J.D. 15 flail chopper; buzz saw; 1 row potato digger; quantity of new sawn lumber.

TOOLS:
Delta 10 in. table saw; Delta drill press; Walker Turner band saw; 2 chain saws; cant hook; odd hand tools; 2 belts and belt lacing; gas cans; cast wood chunk stove; 4 antique "hit and miss" gasoline engines; 2 accordians; almost new router; qty. scrap iron; etc.!

HORSE RELATED ITEMS:
Extra nice N.I. 14-A manure spreader; gravel dump wagon; 2 seat surrey; 2 seat cutter; 2 2-seat buggies; buggy; 2 jogging carts; 2 flat land walking plows; side hill plow; wagon box wagon; 2 2-horse cultivators; other horse drawn vehicles; parts; harness and parts; barrel of white mineral oil; etc.!

A GOOD SALE OF DESIRABLE MERCHANDISE!

Terms: Cash or good check day of sale. L.D. required. Lunch.

Owned by the ESTATE OF "WALT" CHISSOM
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