FARM SHOW

Smörgåsbord

Harold Johnson
Editor

Using sand, salt to dry grain — In a year or two, you could be using sand or salt to dry grain faster and cheaper. The new drying concept has been under study for 10 years at the Canadian Agricultural Research Station at Swift Current, Sask., and has been incorporated into an on-farm dryer prototype that will soon be ready for commercial production, Silvio Tessier, research engineer who has been developing the equipment, told FARM SHOW.

The prototype dryer mixes wet grain with heated sand or salt, then separates out the dried grain from the heated material. Grain slated for feed is dried with salt, and sand is used to dry grain to be used for seed or other non-feed uses, explains Tessier. He notes that there have been no problems in being able to remove the sand or salt particles from the grain once it's been dried down. "In a taste test, a panel of tasters found paddy rice dried with salt to taste no different than air-dried rice," says Tessier. A 4 ft. long prototype being tested dries grain at the rate of 1,500 lbs. per hour (10 points of moisture removed) and a larger commercial size prototype has a capacity of 5 tons per hour.

The ideal mixture, says Tessier, is about 1 lb. of sand or salt for each 3 lbs. of wet grain. Sand and salt are recycled through the dryer and, because of their heat-holding capacity, there is not as much energy input required in each new cycle.

Tessier notes that the energy requirement using salt or sand is about 20% less than air, and the drying is done 5 to 10 times as fast. For example, a bushel of corn at 18% moisture required 8,200 BTU of heated air to dry it down to 13%. But, with hot sand, only 6,500 BTU are required.

Details of the dryer are not available for publicity while patent proceedings are going on, but a commercial manufacturer reportedly is "tooling up" to have a unit in commercial production later this year. FARM SHOW will keep you posted on any new developments.

Powdered wood fuel — Since Scandinavians have been burning wood for centuries, they tend to be one step ahead when it comes to developing new technologies. Now, from Sweden, comes a radical advancement — powdered wood.

Called Ebenol by its inventors, Energibransle AB, the fuel is seen as an answer for central heating because of its low cost and low pollution levels.

Ebenol's raw material is made from wood wastes — twigs, tree tops and other leftover materials from forestry operations. Foreign particles heavier than wood — such as sand, gravel and metals — are separated. Then, the pure wood chips are brought to a hammermill which grinds them down into a fine powder. Drying machines, powered by Ebenol, dry the powder to a predetermined moisture content. It is then stored in silo.

The main advantage of the fuel, say the inventors, is that combustion takes place in the same manner as oil. A free flame, wholly automatic with combustion temperatures of 2,330° to 2,750°F, burns the fuel. To date, the company has dealt only in large-scale commercial and industrial operations. However, a one-family house that uses powdered wood fuel for heating, is under development. It may be in production yet this year. (Excerpted from Wood'n Energy Magazine.)

Children on tractors a "no no" — From time to time, FARM SHOW readers send us photos and details of seemingly "safe" devices they've made for taking small children along on tractors. Here are two recent examples:

"I mounted an old small barrel on my older Deere tractor. It's safe and completely out of my way," writes a Washington state farmer, cautioning that "young riders should wear ear plugs to prevent damage from prolonged exposure to loud tractor noise."

A Wisconsin farmer, noting that "I wanted to build a seat on the tractor so my daughter could safely ride with me," designed one atop a vertical brace post mounted on the tractor's rear axle. It's equipped with a seat belt. "I like the seat because it

Photo by Steve Kinderman, The Country Today

gives me a chance to be near my daughter during the day, and gives my wife some free time." He, too, cautioned about youngsters riding without ear plugs, and that "they shouldn't be riding along on hilly ground".

We ran the above two ideas by several safety specialists, all of whom shuttered at even the thought of thinking it's possible to devise any kind of safe way for small children to ride on tractors. Their strong feelings on the subject are best summarized by University of Deleware extension safety specialist Ron Jester:

"A tractor has only one seat, and it's for the operator. Tractor operators should make 'no riders' a consistent policy," says Jester, who suggests the following safety precautions:

- Never give in to pleas for a ride.
- Instruct other tractor operators that they should never allow riders.
- A tractor is no place to baby sit.

Here's a simple little quiz you can run by your children, or grandchildren, to test their "smarts" (the answers are printed below):

1. How long did the Hundred Years' war last?
2. In which country are Panama hats made?
3. What is a camel's hair brush made of?
4. What color is a purple finch?
5. Where do Chinese gooseberries come from?
6. From which animal do we get catgut?
7. From which country do we get Peruvian Balsam?
8. What was King George VI's first name?
9. In which month do the Russians celebrate the October Revolution?
10. How long did the Thirty Year's War last?

Answers: **1.** 116 years, from 1337 to 1453. **2.** Ecuador. **3.** It is usually made of squirrel's hair. **4.** The distinctively colored parts are crimson. **5.** They're fruits grown in New Zealand. **6.** The sheep. **7.** El Salvador. It's a medicinal herb grown by the Balsam Indians. **8.** Albert. When he came to the throne, he respected the wish of Queen Victoria that no future King should be called Albert. **9.** November (on the 7th). Russia's calendar was 13 days behind. **10.** 30 years, of course — 1618 to 1648.

Animals are more than meat — If your local farm organization, club or school has been looking for someone to speak up against animal rightists, listen to what Billie Hart has to say:

"What animal rights advocates, vegetarians and others don't realize is that we could not survive without the by-products of livestock. Most of these "humanitarians" don't realize that, although they may not eat meat, they're consuming livestock products every day. Some animal by-products include: shoe polish, soap, shampoo, marshmallows, asphalt, carbon steel, cement, baby lotion, baseballs, ball bearings, cardiac replacement valves, gelatin, many medicines, including insulin, and 90% of the material in every automobile.

Billie Hart was a housewife in Arizona in the middle 1970's with children in 4-H. She found that her youngsters became so attached to their show animals they had trouble giving them up to slaughter — or harvest, as she now calls it. In looking for something she could say to make them feel better, she began researching uses for animal by-products. She contacted slaughter houses, chemical labs, pharmaceutical manufacturers and anyone else she could think of for information. It's likely no one else has ever researched the subject as completely, and she's made good use of what she's learned, speaking to audiences throughout the U.S. and Canada for the last five years while continuing her research.

"I also exhibit at fairs and trade shows where vegetarians often approach me, complaining about the slaughter of 'innocent animals'. When they are through I simply explain to them that the paper cup of beer they are holding contains several animals products, including the wax on the cup and the paper it's made from. Then, I tell them that the beer itself contains beef enzymes to give it it's clear color, and sheep products for the suds on the top. They usually walk away."

Other products that make use of animal by-products include: Baseballs (cowhide on the cover, stitching from sheep's wax, tallow in the middle from lambs, rubber reinforced with steric acid from cattle), leather, buttons, handles, carbon steel (bones), film, cigarette papers (gelatin), chewing gum and candy (stearin), brushes, plaster, felt, insulation, textiles (hair), detergents, pesticides, foam, hydraulic oil and other oils, vitamins, adrenalin, heparin, thyroid tablets, hormones, epinephrin and insulin (it takes the pancreas glands from 60,000 cattle to make one pound of pure dry insulin, for example).

"Animal rightists fail to realize that farm animals are being harvested for the good of all and that they live on long after they die," notes Hart.

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"We've been there before" — Orion Samuelson, farm service director for WGN Radio and TV in Chicago, says a Nebraska farm wife sent him a newspaper clipping the other day which describes, in eloquent language, how bad off we are. The article went like this:

"It is a gloomy moment in the history of our country. Not in the lifetime of most men has there been so much grave and deep apprehension. Never has the future seemed so incalculable than at this time. The domestic situation is in chaos. Our prestige has dropped throughout the world. Prices are so high as to seem utterly impossible. The political cauldron seethes and bubbles with uncertainty. Russia hangs as usual like a cloud, dark and silent on the horizon. It is a solemn moment of our troubles. No man can see the end."

Says Samuelson: "Isn't that impressive. Have you ever been told in more eloquent fashion how bad off we are?

"The only catch in that newspaper clipping is the fact that it appeared in the October issue of Harpers Weekly in the year 1857. This says something to me. It says we've been there before and we more than likely will be there again."