

Proper Grain Storage Means Good Quality

COLUMBUS, Ohio — The time and energy put forth in crop production should also be spent in grain storage. Improper grain storage can quickly shrivel a producer's investment into a lump of change.

Randall Reeder, an Ohio State University Extension agricultural engineer, said that with corn harvest nearing, growers should be reviewing the proper management techniques of storing grain.

"It is a wise investment of time to spend a few hours to maintain the \$20,000 to \$40,000 value of grain stored in a 10,000-bushel bin," said Reeder.

Grain stores best when it is dry, clean and cool, and free of insects, diseases and debris. "Weed seeds and fine foreign material, which are usually

wetter than the grain, will accumulate in the center when loaded into a bin, causing storage problems," said Reeder. "This material should be removed from the grain."

Reeder recommends the following steps in preparing a bin for storage to ensure quality grain:

- Repair any holes that may allow water to enter. Look for holes by looking for sunlight coming into the bin. However, do not seal openings intended for aeration.

- Aeration should be used to cool the grain whenever outdoor temperatures are 10 degrees to 15 degrees cooler than the grain. The grain should be cooled to a temperature of about 20 degrees to 30 degrees in Ohio for winter storage. The time required to cool grain weighing 56 to 60

pounds per bushel using aeration can be estimated by dividing 15 by the airflow rate, said Reeder. "For example, the grain will cool in about 75 hours using an airflow rate of 0.2 cubic feet per minute per bushel," he said. "Air takes the path of least resistance, so cooling times will vary in the storage. Measure grain temperature at several locations to assure that all the grain has been cooled."

- Clean the inside of the bin using brooms and/or a vacuum.

- Examine the inside of aeration ducts for debris and insects.

- Temperature plays an important role in grain storage. The optimum temperature for insects is between 70 degrees and 90 degrees Fahrenheit. Cooling below 70 de-

grees reduces insect reproduction and feeding activity, and cooling below 50 degrees causes the insects to become dormant. The optimum temperature for mold growth is also about 80 degrees Fahrenheit. Mold growth is extremely slow below about 30 or 40 degrees. The expected grain allowable storage time is approximately doubled for each 10 degrees that the grain is cooled.

- Service the aeration ducts, fans and vents to ensure proper operation. Reeder said to look for indications of problems such as condensation on the roof or crusting of the grain surface. Most storage problems can be controlled during the winter by cooling the grain.

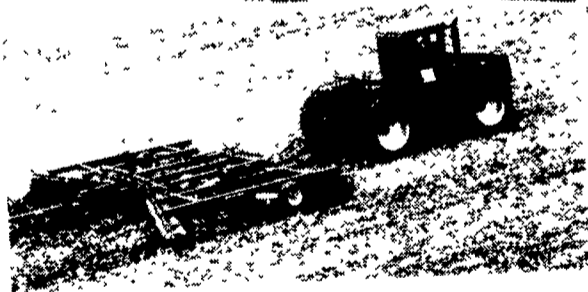
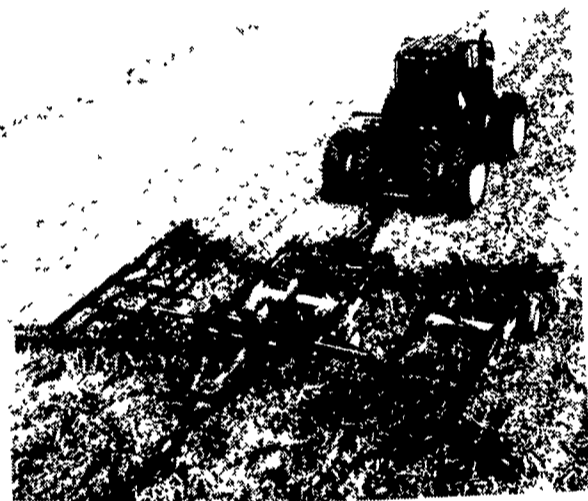
- Clean around the outside of the bin.

- Stored grain must be monitored so insect infestations or grain spoilage can be detected before serious losses occur. Check stored grain bi-weekly during the fall and spring months when outside air temperatures are changing rapidly, and during the summer. Reeder advises checking the grain at least monthly during winter months while outside temperatures are below 40 degrees. Check and record the grain temperature and condition at several locations. The temperature history can be used to detect grain warming, which may indicate storage problems.

More information on dry grain aeration and grain handling and storage, log on to the Midwest Plan Service Website at <http://www.mwpsdq.org> or call (800) 562-3618.

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(But We'll Share It With You Anyway)



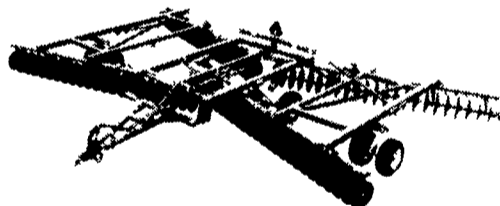
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NGSP Seeks Contestants

LUBBOCK, Texas — Despite hot, dry conditions that have dropped crop ratings across the U.S. Sorghum Belt, Gerald Simonsen, National Grain Sorghum Producers (NGSP) Yield and Management Contest chairman from Ruskin, Nebraska, is encouraging farmers to see how their yields stack up in this year's contest.

"We know there are skilled and dedicated producers out there whose sorghum yields could still be competitive with farmers from other areas and states despite these recent conditions," said Simonsen, referring to the contest's unique structure that allows producers to compete against historic yields in their own counties.

"Because contestants compete against their own county yields, even farmers in areas with traditionally low yields find their own entries are competitive in this contest."

Winners of the contest, which includes five divisions, are determined by the amount a contestant's yield exceeds the five-year average yield in that contestant's county as determined by USDA's National Agricultural Statistics Service. The contestant's score is the difference between their yield and the county five-year average. Winners are determined by high scores in each division. The contest's five divisions are non-irrigated conventional tillage, irrigated conventional tillage, non-irrigated no-till, non-irrigated mulch-till, and irrigated reduced-till.

Based on scores, state and national winners are named in first, second, and third places in each division. State first-place winners then compete for national honors.

Producers may enter as many contest plots as they wish. A nonrefundable, \$35 minimum-30-days-to-harvest Regular Entry fee or minimum-10-days-to-harvest \$70 Express Entry fee must accompany each entry/contest plot. State and national winners of this year's contest who are present will be honored at NGSP's annual conference slated for Feb. 15-17, 2004, Little Rock, Arkansas.

Producers who are interested in entering may contact NGSP by phone at (800) 749-3478 or by e-mail at member@sorghum-growers.com. Entry forms in Adobe Acrobat pdf format also are available by visiting www.sorghumgrowers.com.