

# Pneumatic Conveyors Shown Damaging Corn

Using the lowest air velocity without sacrificing economic practicality should minimize corn damage from pneumatic conveying, U.S. Department of Agriculture (USDA) reports. Tests by USDA's Agricultural Research Service (ARS), in cooperation with the Kansas

Agricultural Experiment Station, Manhattan, show that a high conveying air velocity causes the greatest amount of corn damage in the pneumatic conveying process; damage to corn with low-moisture content is more pronounced than with high-moisture content; and kernel size

and shape has small effect on damage from pneumatic conveying.

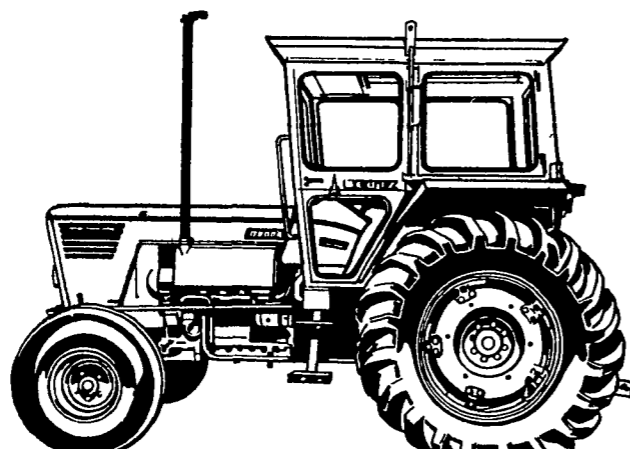
Economic losses resulting from grain damage concern farmers. Although harvest machinery probably causes most mechanical damage to grain, conveying methods and equipment do contribute.

Researchers investigated four variables: Corn kernel size and shape, corn moisture content, conveying air velocity and distance the corn is conveyed. Four categories constituted mechanical damage: breakage, broken kernels, large cracks and small cracks.

Analysis of the relationship between total damage and conveying distance shows that corn damage is generally high for the first 200 feet of conveyance but decreases rapidly as conveying distance increases. Damage to high-moisture corn increases proportionately to increased air velocity. To avoid excessive damage to low-moisture corn, air velocity should not exceed 5,400 feet per minute.

Details on this study are presented in ARS NC-5, "Damage to Corn from Pneumatic Conveying," available free from the U.S. Grain Marketing Research Center, 1515 College Avenue, Manhattan, Kansas 66502. Please use zipcodes.

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## Ag Alumni Meeting at Penn State May 19

College of Agriculture graduates of The Pennsylvania State University will hold their sixth annual alumni meeting on the University Park campus May 19. The program opens at 9 a.m. in the Agricultural Administration Building with registration from 8 a.m. until noon. Returning alumni will enjoy a full day of activities, including the annual Blue-White football game in Beaver Stadium.

"Penn State Agriculture Around the World" will be the 1973 program theme. The morning session, scheduled in the Agricultural Administration Building, Room 301, will feature a panel discussion moderated by Dr. R. H. McAlexander, Coordinator of International Agriculture programs within the College.

Participating in the panel will be Dr. R. E. Swope, Assistant Dean for Resident Education; Leland H. Bull, former Pennsylvania Secretary of Agriculture; and two students involved in international agricultural programs, R. T. Gillaspay of Bellefonte and Prodeep K. Paul of India.

Ag Alumni president Penrose Hallowell of Ottsville, class of 1950, will conduct the annual business meeting Saturday morning and welcome returning alumni. A morning program for wives will be held at the home of Alumni vice president, Paul S. Harner, on Whitehall Road.

The annual banquet will be held in the faculty dining rooms of the Hetzel Union Building at 7 p.m. May 19. Alumni awards to outstanding Penn State agricultural students in baccalaureate and

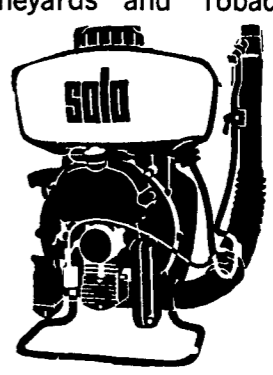
two-year curriculums will be presented during the evening. Stan J. Shepherd, associate professor of physics, College of Science, will entertain banquet guests with a "musical cruise" of the Caribbean.

The program will conclude with a preview showing of the new Penn State football film, "Pride of the East."

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