

Saving The Planet With Higher-Yield Farming

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oil prices. Moreover, unlike oil money, the income gains are being spread among average citizens."

Surging Demands For Better Diets

The first thing that poor people do when they get more income is to bid for better diets. It first begins with more rice and wheat, then expands to eggs, milk, and finally meat, fruits and vegetables.

Examples include:

China - 10% more demand for

meat - 4 million tons per year.

India - Trying to buy an additional 1-2 million tons of milk and dairy products per year.

Indonesia - Increased their broiler consumption by 25% in 1995.

America's Competitive Advantage In Farming

Avery states, "The world has a shortage of cropland with soil structure, temperate climate and rainfall to support high yields (and thus low costs per bushel). North

American has the biggest chunk of such land anywhere in the world." The other three "green jewels" are smaller: the Ukraine, North China Plain, and Argentina.

> The U.S. has the best infrastructure to support its farms. We have four costs for low cost transport and internal waterways such as the Mississippi, Missouri, Ohio, Arkansas, Columbia and Snake.

> America's agricultural research is second to none.

> Nobody else has been diverting 40-50 million acres of good cropland.

> No other country in the world is better mechanized for the production of agricultural commodities. The Chinese farmer invests 2-3 hours of labor per bushel of corn as compared to the American farmer investing 7 minutes.

Currently much international trade is being hampered by domestic politics of importing countries. Developing countries still

have half of their domestic population on farms and so attempt to protect them. Even so says Avery, the U.S. has benefited with 48% of the export growth around the world and "expect to get at least one-fourth of the growth in world food demand in the next two decades."

What About Global Competitors?

Western Europe's commercial farmers are reducing their output, because their subsidies are being slashed. Canada lacks the degree-days and rainfall to expand its crop output sharply. Australia is the world's low cost wheat producer, but Australia has a severe moisture constraint. New Zealand is the world's low cost dairy producer, essentially because of good year-round pasture, but they are already using all their grass. Brazil has about 200 million unplanted acres of arable land on the western frontier. The problem is the lack of a good transportation system included with the rough terrain and lack of funds to build a suitable rail system. Eastern Europe has the land and the climate to produce dairy products for export, but lacks the infrastructure, institutions, capital, farm inuts, and political stability. Argentina would be the second-biggest beneficiary of free farm trade. They could double their output, but would have to give up their current low-cost pasture/crop rotation and adopt intensive U.S. style farming. Argentina still has only one-third as much arable land as the U.S.

Considering all of the above, one might conclude that American should have a global competitive advantage.

Saving Wildlife Habitat With Public Opinion

"If the American farmer has the incentives to produce, and even gets Federal payments to buffer the shift toward export markets, what else could farmers possibly need to prosper? They will need public approval."

Avery points out that if agriculture is going to regain its rightful place in our public policies, it must be seen as a public benefit. The answer is "If agriculturists understand and emphasize the environmental benefits of high-yield farming, they can convert the momentum built up for protecting the environment and saving wildlife into support for high yield farming also."

Think about this, the public is concerned with saving the environment which includes wildlife. Many influential people believe that to save wildlife would require a famine. Do you agree?

Avery warned a senate hearing that the real question was not *famine* but wildlife. "Famines don't occur until after the hungry people have hunted down virtually every every wild creature and plowed the remaining forest for low-yielding crops." It is not a choice between feeding the people or wildlife, we have to do both. *The only way that the world can have wildlife in the 21st century is by tripling the yields again on the planet's safest cropland.* That will prevent the famines, prevent the plow-down of tropical forests to grow broiler feed and dairy forage.

With the pursuit of higher yields, through research, technology and especially the new frontier of biotechnology, we should be able to meet the food challenge of the 21st century on less land than farming takes today.

Research On Hog Behavior May Give Clues To Pig Crushing

DES MOINES, Iowa — An Iowa State University study that evaluated sow and piglet behavior provides some clues to the causes of pig crushing.

Researchers Jennifer Minick and Don Lay took a different approach to the problem, focusing on the interaction of the gilts and pigs that leads to crushing. "Typically you're looking at changes to the pen to try and figure out how to keep them from laying on the pigs," Lay said.

Minick and Lay presented results of the research at the Midwest meetings of the American Society of Animal Science and American Dairy Science Association.

The goal of the study was to measure the behavioral differences that may be responsible for fewer crushed pigs. If activities that prevent pig crushing could be discovered, the researchers figure that breeding stock could be selected based on those behaviors. They looked at time the gilts spent lying down, sitting and kneeling and the number of body turns and position changes.

Lay and Minick compared the behavior of two breeds of gilts — Chinese Meishan and Yorkshire. Meishan sows have a lower incidence of piglet crushing compared to American sows. Yorkshire gilts were used as the representative breed in U.S. herds.

Sows of breeds typically raised

in the United States crush an average of 1.2 to 1.5 pigs per litter. In Iowa, crushed pigs cost pork producers \$8 million a year. A European study found a 5 percent survival advantage for the Meishan breed.

The gilts were placed in 5-by-7-foot pens to study their behavior in a more natural setting than a farrowing crate, said Minick, an ISU animal science senior. Lay said that Meishan gilts are not used to crates and sometimes "sulk" and refuse to eat when placed in them.

In the ISU study, the four Yorkshire sows each crushed one pig. Just one pig was crushed by all six Meishan sows and that was done during farrowing.

Less-active gilts that spent more time lying down had fewer opportunities to crush their pigs. The Yorkshire gilts were more active than the Meishan gilts and also spent more time sitting and kneeling, behavior that indicated discomfort. Minick said when the Yorkshire sows were sitting, pigs would typically run around under them, making them more vulnerable to crushing when the sows did lie down.

The Meishan gilts also performed a maneuver that seemed to protect their pigs from being crushed, Minick said. "The Meishan sows just flopped down, but they turned at least once before lying down to look for the pigs," she said.

Association Releases Fair Schedule

HARRISBURG (Dauphin Co.) — The Pennsylvania State Association of County Fairs released the 1997 fair schedule recently.

Following is a list of fair schedules, places, and dates.

May 15-26	PA Fair at Philadelphia Park	Bensalem
May 29-June 8	Philadelphia County Fair	Fairmount Park, Phila.
June 23-28	Schnecksville Community Fair	Schnecksville
June 27-July 5	Butler Fair	Butler
July 1-5	Wolf's Corner Fair	Tionesta
July 6-12	Clarion County Fair	New Bethlehem
July 7-12	Derry Twp. Agricultural Fair	Derry Township
July 10-19	Lycoming County Fair	Hughesville
July 13-19	Jefferson County Fair	Brookville
July 15-19	Jacktown Fair	Wind Ridge
July 21-26	Jefferson Township Fair	Mercer
July 21-26	Kimberton Community Fair	Kimberton
July 21-26	Shippensburg Community Fair	Shippensburg
July 21-27	Troy Fair	Troy
July 22-26	Plainfield Farmers Fair	Nazareth
July 24-Aug. 2	Fayette County Fair	Dunbar
July 26-Aug. 1	Lebanon Area Fair	Lebanon
July 27-Aug. 2	Mercer County Grange Fair	Mercer
July 27-Aug. 2	Potter County Fair	Millport
July 28-Aug. 2	Morrison Cove Dairy Show	Martinsburg
July 28-Aug. 2	Clearfield County Fair	Clearfield
July 28-Aug. 2	Goshen County Fair	West Chester
July 29-Aug. 2	New Stanton Farm & Home Fair	New Stanton
August 1-9	Wayne County Fair	Honesdale
August 2-9	Clinton County Fair	Mackeyville
August 2-9	Greene County Fair	Waynesburg
August 3-9	Bedford County Fair	Bedford
August 3-9	Schuylkill County Fair	Summit Station
August 3-10	Union County West End Fair	Laurelton
August 4-9	Butler Farm Show	Butler
August 4-9	Cochranon Community Fair	Cochranon
August 4-9	Dawson Grange Community Fair	Dawson
August 4-9	Sykesville Ag & Youth Fair	Sykesville
August 4-9	Tioga County Fair	Whitneysville
August 4-9	Warren County Fair	Pittsfield
August 5-9	Elk County Fair	Kersey
August 5-9	Harold's Fair	Greensburg
August 5-9	Sewickley Twp. Community Fair	West Newtown
August 6-9	Cumberland Ag Expo	Newville
August 9-16	Washington Co. Agricultural Fair	Washington
August 10-16	Bullskin Township Fair	Wooddale
August 10-16	Huntingdon County Fair	Huntingdon
August 11-16	Dayton Fair	Dayton
August 11-16	Kutztown Fair	Kutztown
August 11-16	Lawrence County Fair	New Castle
August 11-16	Montour-DeLong Community Fair	Washingtonville
August 11-16	Venango County Fair	Franklin
August 11-17	McKean County Fair	Smethport
August 13-17	Middletown Grange Fair	Wrightstown
August 14-16	Findlay Twp. Community Fair	Clinton
August 14-16	Mount Nebo Fair	Mount Nebo
August 15-23	Westmoreland Agricultural Fair	Greensburg/Mt.Pleas.Rd.
August 16-23	Crawford County Fair	Meadville
August 17-23	Cameron County Fair	Emporium
August 17-23	Franklin County Fair	Chambersburg
August 17-23	Fulton County Fair	McConnellsburg
August 17-23	Somerset County Fair	Meyersdale
August 17-23	Transfer Harvest Home Fair	Transfer
August 18-23	Harford Fair	Harford

August 18-23	Mountain Area Community Fair	Farmington
August 18-25	Williamsburg Comm. Farm Show	Williamsburg
August 19-23	Blue Valley Farm Show	Bangor
August 19-23	Elizabethtown Community Fair	Elizabethtown
August 19-23	Hookstown Fair	Hookstown
August 19-23	Perry County Fair	Newport
August 22-28	Centre County Grange Fair	Centre Hall
August 24-30	Indiana County Fair	Indiana
August 24-30	West End Fair	Gilbert
August 26-30	Big Knob Grange Fair	Rochester
August 26-Sept. 1	Allentown Fair	Allentown
August 26-Sept. 1	Greene-Dreber-Sterling Fair	Newfoundland
August 26-31	Wattsburg/Erie County Fair	Wattsburg
August 27-31	South Mountain Fair	Arendtsville
August 27-Sept. 1	Kiwanis/Wyoming County Fair	Reshoppent Twp.
August 27-Sept. 1	Stoneboro Fair	Stoneboro
August 27-Sept. 1	Sullivan County Fair	Forksville
August 30-Sept. 6	Juniata County Fair	Port Royal
August 31-Sept. 6	Cambria County Fair	Ebensburg
August 31-Sept. 6	Spartansburg Community Fair	Spartansburg
September 1-6	Ox Hill Community Fair	Bowe
September 1-6	Waterford Community Fair	Waterford
September 1-6	West Alexander Fair	West Alexander
September 2-6	Claysburg Area Farm Show	Claysburg
September 2-6	Jamestown Community Fair	Jamestown
September 3-6	Bellwood Antis Farm Show	Bellwood
September 3-7	Pike County Agricultural Fair	Matamoras
September 4-8	Luzerne County Fair	Dallas
September 5-14	York Interstate Fair	York
September 6-13	Green Township Community Fair	Coolport
September 9-13	Alblon Area Fair	Alblon
September 9-13	Denver Community Fair	Denver
September 9-13	Sinking Valley Fair	Skelp
September 10-13	Berlin Brothersvalley Community Fair	Berlin
September 14-20	Beaver Community Fair	Beaver Springs
September 14-20	Gratz Fair	Gratz
September 16-20	Harmony Grange Fair	Westover
September 17-19	Southern Lancaster County Fair	Quarryville
September 18-20	North East Community Fair	North East
September 18-20	Oley Valley Community Fair	Oley
September 18-20	PA Yorkshire Summer Show & Sale	Lebanon
September 20-27	Bloomsburg Fair	Bloomsburg
September 22-25	All American Dairy Show	Harrisburg
September 22-28	Reading Fair	Kutztown
September 23-26	Norrison Cole Community Fair	Martinsburg
September 23-27	Ephrata Fair	Ephrata
September 23	PA Holsteinn Fall Championship Show	Harrisburg
September 24-26	West Lampeter Community Fair	Lampeter
September 26-28	Tri-Valley Community Fair	Hegins
September 27	Falmouth Goat Race	Falmouth
September 30-Oct. 4	New Holland Farmers Fair	New Holland
October 1-6	Keystone International Livestock Exposition	Harrisburg
October 6-9	Holidaysburg Community Fair	Holidaysburg
October 6-10	Manheim Farm Show	Manheim
October 8-11	Unionville Community Fair	Unionville
October 14-18	Dillsburg Community Fair	Dillsburg
October 17-19	Uniontown Poultry & Farm Products Show	Dunbar