



All Ohio Chapter News

Soil and Water Conservation Society

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From The President

By Brent Sohngen

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Hold the Date!
February 3, 2009 is the tentative date of the AOC Winter Meeting to be held at the Ohio Department of Agriculture in Reynoldsburg, Ohio.

Survey Responses: What do they mean for our chapter?

The executive council and I really appreciate the many members who took time to respond to our survey over the summer and into the fall. Most of you have probably already seen the summary I sent via email a few weeks ago. We obtained excellent information from that survey, and we have already begun using the information, for example, in planning the winter meeting. In this article, I would like to focus on the responses to a few of the questions on the survey, and discuss how the executive council is working to address those issues.

First, let me begin by noting that we obtained responses from a broad cross-section of our membership:

I work for one of the following (% of responses): USDA-NRCS (34%); ODNR (13%); SWCD (6%); University (13%); Non Profit (0%); For profit (16%); Other (19%)

The weighting of responses generally follows our actual membership, with most of our members coming from federal agencies, for profit organizations, state and local agencies, and universities. We did not obtain responses from any of our non-profit members. Several of our members do work for non-profits, but this does represent a potential weakness in membership we should all try to address. Given the increasingly important role that non-profit partners are playing in the distribution of conservation dollars on the landscape (from watershed groups to local partners of the major national and international environmental NGOs), we all need to work harder to encourage individuals from our non-profit partners to get involved in our organization.

Second, the ranking of natural resource issues is perhaps not surprising, especially with the top three ranked issues. Energy and biofuels have certainly become more important issues in recent years, and it is also

Member Spotlight – Sandy Chenal

By Christina Coulon

The All Ohio Chapter of the SWCS is pleased to introduce you to one of our award winning members and current Secretary. Ms. Sandy Chenal has been a member of the All Ohio Chapter since 1985. She is a native of New York and a graduate of Hocking College and the Ohio State University with a degree in agronomy. Sandy has worked as a District Conservationist with the Natural Resources Conservation Service (NRCS) in Butler and Trumbull counties. Currently, Sandy is the Resource Conservation and Development (RC&D) Coordinator of the Crossroad RC&D, a position she has held since 1992. In addition to her employment with NRCS, Sandy serves as a board member of the Wilderness Center and is a founding board member of the Sunshine Children's Foundation.

Among Sandy's accomplishments are numerous awards. Most recently, Sandy received the National RC&D Coordinator of the Year award. She competed against 375 other RC&D Coordinators across the country for this honor. Also in 2007, the Jefferson SWCD honored Sandy with the Distinguished Service Award. In 2006, Sandy received the Dan Kush Award for Excellence in an Educational Publication for Wills Creek our Backyard Watershed. She also received the 2006 North Central RC&D Coordinator of the Year award.

See Member Spotlight on page 10



*All Ohio Chapter Secretary
Sandy Chenal*

Summer Meeting Highlights

By Gordon Starr and Chris Coulon

The 2008 AOC Summer Meeting took place on and around the campus of Hocking College. In the morning, instructors from Hocking College educated the participants about Hocking College programs. Presenters included Jerry Hutton (energy programs), Mike Caudill (geoenvironmental science), Mike Hass (GIS/GPS), and Dave Swanson (wildlife management).

The afternoon was devoted to a tour of acid mine drainage treatment sites in the surrounding area. Ben McCament, Raccoon Creek Watershed Coordinator, Ohio University, lead the tour of two acid mine drainage sites. Pyrite, water, and oxygen combine in abandoned coal mines to form sulfuric acid in sufficient quantities to kill normal stream flora and fauna. The sites exhibited active and passive water treatment to neutralize the acid. The first site at the headwaters of the Raccoon Creek Watershed had a doser hopper actively treating mine water with calcium oxide. The second site used passive treatment with drainage going through beds of iron slag. All and all it was an informative and scenic outing that had something for everyone to appreciate and learn.



Ben McCament explains how a doser hopper works. (Photo by Larry Porter)

Student Scholarship Winner

By Angel Arehart, Scholarship Committee Chair

Jessica Turner is a senior Conservation Science major and is looking forward to graduation in June 2008. She will minor in Biology, Psychology, and Art. After school, she plans on continuing her education with plans for Graduate School in environmental policy. In the spring of 2007 Jessica participated in a 'study abroad' program to Hawai'i, where she studied Marine Biology at Hawai'i Pacific University.

She has worked with The Wilds, North America's Largest Research and Conservation Facility, since high school. There she has worked with animal management, restoration ecology, conservation medicine, and most extensively with conservation education. She also has several research experiences through the Wilds and White Oaks in Yulee, Florida. This summer she is an intern at the non-profit the National Network of Forest Practitioners. Her senior seminar focus is on cortisol levels in Persian Onagers in response to husbandry situations.

Jessica has helped restore two houses with her family, including an 1830 log cabin. She enjoys hiking, travel, and identifying edible plants.



Scholarship winner Jessica Turner

Must Food Grow Scarcer?

*By Douglas Southgate, Professor, Dept. of Agricultural, Environmental, and Development Economics, Ohio State University**

In 1985, food prices reached very low levels - 75 percent below prices right after the Second World War if a correction is made for inflation. There was no significant adjustment during the next two decades, which created enormous benefits in terms of the alleviation of hunger and general economic progress.

Anyone who has shopped for groceries recently knows that food is no longer cheap. In January of this year, wheat was changing hands for \$10/bushel - two-thirds higher than the price in July 2007. During the same six months, soybean prices rose by 30 percent.

This article examines trends in the global food economy. To begin, long-term trends in demand and supply are surveyed. Next, various factors underlying the high prices experienced in 2007 and 2008 are examined. The paper concludes with observations about the alleviation of food scarcity.

See Must Food Grow Scarcer on page 5

Biography: Douglas Southgate specializes in the study of environmental problems in developing countries. He has written numerous books, chapters and journal articles on public policies contributing to tropical deforestation, the economics of watershed management and related topics. Along with Douglas Graham and Luther Tweeten, Southgate recently completed "The World Food Economy", which Blackwell Publishing released in 2006.

This paper is a condensed version of a paper with the same title that will be released soon by the International Policy Network (www.policynetwork.net)

SWCS - All Ohio Chapter Awards for *OUTSTANDING PUBLICATIONS in 2007*

By Larry Antosh, Publications Awards Committee

The Soil and Water Conservation Society - All Ohio Chapter announces the following outstanding publication awards for 2007. A total of 12 publications were nominated by SWCS - AOC members for consideration for the three awards. All of the nominations represent excellent examples of publications of non-technical educational material, scientific research and general information regarding soil and water conservation.

Dan Kush Award for Excellence in an Educational Publication: The award is given to a non-technical publication or report that is intended to educate Ohioans about soil and water conservation and environmental resources.

Jane Frankenberger, Eileen Kladviko, Gary Sands, Dan Jaynes, Norm Fausey, Matt Helmers, Richard Cooke, Jeff Strock, Kelly Nelson, Larry Brown. 2006. Purdue Extension Publication WQ-44 - Questions and Answers about Drainage Water Management for the Midwest.

This extension fact sheet helps producers understand drainage water management by providing common language answers to 27 questions. As a result, the reader gains a better understanding of what is entailed in drainage water management and helps them determine if this practice is appropriate for them. Drainage water management is a management practice that allows the producer to vary the depth of the drainage outlet by adding a water control structure to a tile drainage system. Management of the outlet level during the year results in lower annual amounts of nitrate leaving the crop field and flowing into ditches and streams. Before a producer can make the decision to

incorporate this practice on their operation, they need to obtain a better understand of the practice.

All Ohio Chapter Award for Excellence in a Scientific or Technical Publication: The award is given to a scientific or technical publication published in a refereed or juried journal, a book or chapters in a book, research report, or other published papers about soil and water conservation and environmental resources.

K.W. King and H.A. Torbert. 2007. Nitrate and ammonium losses from surface-applied organic and inorganic fertilizers. *The Journal of Agricultural Science* 145(4):385-393.

This publication describes research designed to compare and contrast the amount of nitrogen lost in overland flow from inorganic and organic fertilizers applied to grassland. Two manufactured (ammonium nitrate and sulphur-coated urea) and two natural products (composted dairy manure and poultry litter) were investigated. Given the increasing cost of manufactured fertilizers and the water quality implications associated with off-site transport of nutrients, the research highlights the importance of an integrated approach to nutrient management.

All Ohio Chapter Award for Excellence in a General Information or Popular Publication: The award is given to a publication that is directed to the general public about soil and water conservation and environmental resources.

Chandra A. Madramootoo, William R. Johnston, James E. Ayars, Robert O. Evans and Norman R. Fausey. 2007. *Agricultural Drainage Management, Quality and Disposal Issues in North America. Irrigation and Drainage* 56(S1):S35-S45.

This publication provides the reader with a historical overview of agricultural drainage in North America. The reader is presented discussions of the need, extent and status of drainage in North America (Canada, Eastern, Midwestern and Western United States); water quality issues associated with agricultural drainage, drainage water management and drainage water disposal problems.

From Must Food Grow Scarcer, page 3

Demand and Supply Trends, 1950 to 2000

Demographic expansion during the second half of the twentieth century, when human numbers rose from 2.67 billion to 6.06 billion, was without historical precedent. But with human fertility declining, population growth is now decelerating. Demand growth is driven much more these days by improved earnings, which are causing per-capita consumption to increase. U.N. Secretary General Ban Ki-moon has warned that global demand could be 50 percent higher than current levels in 2030 (Ban, 2008).

Significantly, unprecedented population growth and our growing individual appetites for food did not unleash an unmeasured expansion of farmland and pasture in recent decades. Instead, the main response of farmers to increasing demand was to adopt new technology, which raised agricultural yields. For the world as a whole, per-hectare output of cereals, which account for more than 60 percent of the world's food supply, had risen by the late 1990s to 3.0 metric tons, which was double the average yield in the early 1960s (Southgate, Graham, and Tweeten, 2007, p. 58).

Primarily because of yield growth, food supplies increased faster than human numbers and food demand throughout this period. And to repeat, inflation-adjusted prices fell, reaching very low levels as the twentieth century drew to a close.

Spiking Prices in 2007 and 2008

Price trends during the past two years represent a dramatic departure from the long-term trend - dramatic enough to grab newspaper headlines. Some political figures have blamed price increases in 2007 and 2008 on speculators. At least one U.S. Senator has done so and Italy's Finance Minister has condemned these market actors as the "plague of the twenty-first century" (Reuters, 2008). However, absolutely no evidence has been provided that some person, group, or firm has been trying to "corner the market" (Young, 2008).

Accusations of speculation would be worth considering if there were no other explanation for recent price increases. But this is not the case - certainly not in the world's largest economy. The U.S. dollar has lost nearly half its value relative to the euro in recent years, falling from a peak of €1.15 in 2001 and early 2002 to €0.65 in early 2008. In light of this devaluation, is it any wonder that more dollars must now be offered in exchange for any given amount of food?

Another trigger for higher food prices has been the increase in oil prices. For a very straightforward reason, the latter increase is a direct consequence of monetary devaluation in the United States. International petroleum prices are always expressed in dollars and, as the U.S. currency has lost value, exporting countries have demanded more dollars for every barrel they supply. Expensive energy has affected the food economy in various ways, generally driving up prices of edible products.

Economic agents of various sorts have responded to increases in food prices by engaging in behavior that is entirely rational, although it is sometimes disparaged as speculative. For example, the toll that has been taken on stocks and other financial assets because of the dollar's decline has prompted U.S. investors who normally do not trade agricultural products and other primary commodities to do so. As funds have moved from the financial sector to commodity markets, prices have gone up in the latter.

Energy and Agriculture

Farming has always been an energy-intensive business. Certainly, production costs are sensitive to energy prices where agriculture is mechanized. But these prices matter even in settings where tractors and other machinery are not used. In these settings, nitrogen fertilizer is routinely applied to enhance land fertility. Chemical synthesis of this input requires a lot of energy. So does the transportation of crops to market. Thus, the costs of un-mechanized production of crops rise and fall as the scarcity of energy varies.

Another linkage between energy and agriculture has to do with the search for alternative energy sources, which gains strength when conventional fuels are costly. Some of these alternative sources are agricultural, including the conversion of commodities such as sugar and corn into alcohol (or ethanol) as well as the production of biodiesel from African palm and other oil crops.

The European Union has set a goal that biofuels comprise at least 5.75 percent of all transport fuel by 2010 (Commission of the European Communities, 2006). In the United States, the conversion of corn into ethanol is encouraged with subsidies and import restrictions. The annual cost to the U.S. Treasury is \$7 billion (Doornbosch and Steenblik, 2007, p. 6).

Observing that “a moratorium on grain-based biofuels would quickly unlock these commodities for use as food,” the Director General of the International Food Policy Research Institute contends that “this measure might bring corn prices down globally by about 20 percent.” Joachim von Braun also says that wheat prices would fall by 10 percent if biofuel development ceased (von Braun, 2008).

Market Rigidities Created by Government Policies

By no means is biofuel development the only cause of higher food prices. Export restrictions also have had an impact. According to the World Bank (2008a), more than thirty nations, including several with the potential to be major suppliers in international commodity markets, have adopted export restrictions in recent months. As a result of these restrictions, prices have climbed even higher, to the great detriment of food consumers everywhere.

In various countries, limits on exports represent the latest governmental assault on supply response and production incentives in the agricultural sector. An excellent case in point is the Ukraine, where output of crops and livestock as well as rural life suffered severely during the twentieth century because of communism. Because of slow reform in the Ukrainian countryside (EBRD, 2002), production has not yet recovered.

Argentina is another place where the environment is highly favorable to agriculture, yet where production has been hampered by government policies. The recent discouragement of farm exports by authorities in Buenos Aires is probably the most widely cited example today of an inappropriate response to high prices.

Argentine agriculture has been held back for decades by currency over-valuation, taxes, and at times quantitative restrictions on exports of beef. The negative consequences of these policies are indicated by a long-term decline in agricultural land use. In the early 1960s, nearly 1,380,000 km² (half the national territory) were dedicated to crop and livestock production. By 1980, the area being farmed or ranched had fallen to 1,280,000 km². Currently, this area stands at 1,290,000 km², of which 90,000 km² are planted to cereals (World Bank, 2008b). Almost certainly, extensive tracts that are well suited to wheat, soybeans, etc. are not being farmed at present.

There is little immediate chance of a recovery in agricultural land use, generally, or the area planted to grain and oil crops, specifically. President Cristina Fernández’s proposal to raise taxes

(*retenciones*) on soybean exports to 55 percent was defeated in the Congress only because her Vice President cast a negative vote. This is a rare victory for Argentina's farmers, who historically have been politically fragmented. Nevertheless, substantial taxes and quantitative restrictions remain in place, much to the detriment of price stability at the global level.

Lagging Research and Development

At a global summit convened in Rome in June 2008, Secretary General Ban underscored the deleterious impacts of policies such as Argentina's. He also directed the world's attention to the full range of factors responsible for higher food prices, including but certainly not limited to biofuel development (Ban, 2008).

The Secretary General paid special attention in his remarks to support for agricultural research and development. His assessment that current funding is deficient is consistent with all available evidence. Public-sector budgets appear to have peaked during the 1980s, approximately when the 20-year period of low commodity prices commenced (Pardey and Beintema, 2001). During the last decade of the twentieth century, government funding held steady in affluent nations. Meanwhile, budgets fell in the developing world, presumably because governmental authorities regarded technological progress in agriculture as a low priority as long as food was cheap.

In the United States and a few other affluent nations where intellectual property rights are generally respected, private firms such as Monsanto spend large sums on agricultural biotechnology. This private investment substitutes to an extent for expenditures by the public sector benefiting crop and livestock production. Three developing nations - Brazil, China, and India - provide substantial support for research and development, including biotechnology. But elsewhere in the developing world, this support has dwindled to very low levels, as Pardey and Beintema (2001) emphasize.

Reflecting the consensus among specialists in agricultural development, Secretary General Ban calls for a renewed commitment to research and development. The "overall price tag for national governments and international donors," he states, "could exceed \$15 to 20 billion annually, over a number of years." He adds that half this amount is needed "to realize a Green Revolution in Africa" (Ban, 2008).

Summary and Conclusions

Since the middle of the twentieth century, human numbers and the demand for food increased at an unprecedented pace. However, food supplies grew even faster, in part because of agriculture's geographic expansion but mainly because of yield increases. Thanks to accelerated agricultural development, food became less scarce, as indicated by a 75 percent decline in real prices of white, rice, and other cereals after 1950.

Food is not as cheap as it was just a few years ago. Multiple factors are response for price increases. One of these factors is the declining value of the dollar. Also, devaluation of the U.S. currency has coincided with higher oil prices, which in turn have driven up the cost of producing and transporting food.

The early years of the twenty-first century were the end of a two-decade period of low commodity prices. Cheap food, energy, metals, etc. contributed to economic growth in various ways. Aside from alleviating hunger, low prices for edible products allowed for more purchases of non-food items, which stimulated economic diversification, as well as increased savings, which accelerated economic growth. In addition, low transport expenses promoted specialization and trade, which brought prosperity to places that embraced globalization.

Low food prices also have encouraged farmers to find new uses for their crops, including as an energy source. As they have convinced governments in the United States and elsewhere to encourage biofuel development with subsidies and protection from imports, global commodity markets have been affected.

Regardless of whether they were catalyzed by the declining dollar, biofuel development, or something else, recent upswings in food prices have been made worse by the economic suppression of agriculture in Argentina, the Ukraine, and many other nations. In 2007 and 2008, this suppression took the form of export restrictions, adopted by a large number of countries.

In his June 2008 address, Secretary General Ban rightly criticized these restrictions. He also emphasized that a renewed commitment to agricultural research and development is needed, in Sub-Saharan Africa and other parts of the world. Without this research and development, which requires institutional reform as well as the financial investment that Secretary General Ban advocates, the supply of food will not keep up with rising food demand.

Although not expected to be as sizable as the growth experienced between 1950 and 2000, increases in demand will continue during the twenty-first century. The challenges posed by demographic expansion and humankind's desire for dietary improvement have been met in the past and are by no means insurmountable today. With free markets, available resources will be allocated and food demands will be satisfied efficiently. Furthermore, more food can be obtained from existing resources if investments in research and development result in technological progress.

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not surprising to see that rise to the level it has. Moving forward, this ranking will help us develop programming for future meetings.

Ranking of natural resource issues in order of importance:

- 1) Water quality
- 2) Soil erosion
- 3) Land use change
- 4) Energy/Biofuels
- 5) Climate change
- 6) Air quality
- 7) Wildlife habitat
- 8) Invasive Species

Third, the ranking of objectives provided by the membership is surprising:

Ranking of Objectives of the All Ohio Chapter in order of importance:

- 1) Foster leadership and technical expertise of AOCSWCS membership.
- 2) Implement the Mission, Goals and Objectives of this Strategic Plan
- 3) Apprise Ohio citizens of important natural resource issues.
- 4) Diversify and increase the membership of AOCSWCS.
- 5) Advocate legislation and public policy that promotes the conservation of natural resources.
- 6) Establish and affirm Chapter identity.
- 7) Maintain the Chapter's College Scholarship Program and continue fund raising efforts.

The highest two ranked objectives are probably no surprise. It's vitally important for any organization like ours to foster leadership and to implement our mission and goals. It's useful for the executive council to hear that so we can remain focused on our mission. However, the 3rd, 4th, and 5th ranked responses were surprising to me. In particular, I was surprised to learn that our membership viewed our public education and policy advocacy roles as important aspects to address.

As an organization, we largely focus on the objectives ranked 1st, 2nd, 6th, and 7th. We do not focus as directly on the other objectives. This survey, however, suggests that there are opportunities for our organization to have a bigger impact in Ohio by enhancing knowledge among Ohio citizens, and helping to promote policies that enhance natural resources in the state. I believe we should begin working to more directly implement the objectives ranked 3rd and 5th.

The executive council has been discussing this in the past few meetings. One way to address the public policy issues is to develop an ad-hoc committee on public policy. We have worked to develop a position description for the membership of this proposed committee, and we will share that with the membership over the list serv in the next couple weeks. We hope that you will take the time to review our proposal and make some comments. It is our plan to obtain feedback from our membership about this proposal over the next two months. We can then move forward with selecting membership for this committee and getting it working on important issues next calendar year.

If you have any questions or comments about the survey or our proposed new committee, please do not hesitate to contact me at sohngen.1@osu.edu.

Outstanding Member Nominations

By Art Brate, Award Committee Chair

It is time to consider nominating one of your fellow members as the All Ohio Chapter SWCS Outstanding Member. This award will be presented at the annual meeting this winter.

Take a few minutes and nominate them. The nomination form is on line at the All Ohio Chapter homepage. Click on [News](#) and the link is at the bottom. My email address is shown so please return the completed form to me by December 15, 2008.

From Member Spotlight,
page 2

When Sandy was asked why she is a member of SWCS she states, "SWCS is an opportunity to network beyond NRCS on issues related to Soil and Water. I believe it is important to be active in my career field beyond NRCS. It is a good way to provide continuous learning to remain up-to-date on issues and solutions to our environmental concerns. I feel it is a chance to give back to a field that has been very rewarding."

Sandy explains the benefits she's received from being a member of SWCS. "Early in my career it gave me the opportunity to see the big picture of soil and water conservation. It helped me understand partner agencies and how working together we can address our natural resource concerns," she says.

On a personal note, Sandy has lived in Ohio all of her life. She was raised in Wayne County and currently lives in a log home in northern Tuscarawas County. She appreciates that her current position allows her to be near family and friends.

To submit items for the newsletter contact newsletter editor Chris Coulon at chris.coulon@oh.usda.gov



SWCS Award Winners at the SWCS International Meeting (l-r)–

Robert Ball - Fellow, Norm Fausey - Conservation Research Award, and Ted Napier - Hugh Hammond Bennett Award

Events of Interest

- [OHIO FEDERATION OF SOIL AND WATER CONSERVATION DISTRICTS ANNUAL MEETING](#) – January 19-22, Columbus, Ohio
- [WATER MANAGEMENT ASSOCIATION OF OHIO FALL CONFERENCE](#) – November 12-13, Columbus, Ohio
- [OHIO NO-TILL CONFERENCE](#) – December 9, Plain City, Ohio
- [CONSERVATION TILLAGE CONFERENCE](#), February 26-27, Ada, Ohio

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