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Minnesota Applied Economist

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A Newsletter for Alumni and Friends of the Department of Applied Economics University of Minnesota

Department Head's Notes

The department continues to upgrade and modify the undergraduate program to better prepare students for the economic and work environment they face on graduation. The result is an undergraduate program that is growing in terms of the number of students served and in the quality of the educational experience they receive.

Undergraduate Enrollment Is Increasing

The department offers two undergraduate majors: Applied Economics, and Agricultural and Food Business Management. Enrollment in these two majors totaled 242 students during the Fall Semester 2001. which was up more than 10 percent from the previous year. Of the 242 undergraduates admitted last Fall, 113 were from the seven-county metro area, 66 from other parts of Minnesota, 49 hailed from other states, and 14 came from other countries. During 2001–2002, 76 of our undergraduates completed their program, 49 in Applied Economics and 27 in Agricultural and Food Business Management. While graduates would always prefer more job offers, opportunities with competitive salaries have been relatively plentiful for our graduates. Looking ahead, the number of students confirmed for admission in the Fall Semester 2002 suggests we will enjoy another 10 percent increase in enrollment this year.

Improving the Undergraduate Educational Experience

In our classes, we continue to emphasize microeconomic and macroeconomic concepts and their application to important issues in the public and private sectors. The Agricultural and Food Business

Management major is offered jointly with the Carlson School of Management, which gives our students access to a full array of modern business courses. Both majors encourage students to make use of course offerings from across the University allowing them to broaden and personalize their programs. In addition, our faculty enrich the undergraduate experience in both majors by modernizing course content and adopting modern delivery methods including the use of Web-based delivery and more use of Socratic methods. (See Page 6.) To help our students prepare for the world of work, all are encouraged to gain real-world experience through an internship, and we are currently creating opportunities for an increasing number of them to include a short-term international experience in their program. And last, to significantly improve student access to high-quality advising, we hired a staff member, Gary Cooper, who helps students with their initial registration, plan their program of study, and deal with the many requirements they must satisfy for a successful undergraduate experience.

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Three Departmental Faculty Receive Teaching Awards

Other important factors contributing to the quality and success of the program are the department's continuing commitment to have tenure-track faculty teach undergraduate courses—and the entire faculty's commitment to excellence in teaching. Three of our faculty, Kent Olson, Claudia Parliament, and Richard Levins were recognized for their outstanding teaching during the past year.

Kent received the "Outstanding Faculty Award" from the Agricultural Education Club for teaching his "Farm Management" course. Claudia received the "2001-2002 Outstanding COAFES Teacher of the Year Award" presented by the COAFES Student Board for her unique approach in teaching microeconomic principles. Richard received the "Faculty Award for Excellence in Teaching of Writing," which is awarded by the Interdisciplinary Studies of Writing Center. Richard received the award for his innovative ways of incorporating writing into his "Economic Development of U.S. Agriculture" course.

Looking Ahead

The faculty in the department are fully committed to maintaining a relevant and high-quality curriculum, which requires that teaching methods, course content, and related educational activities are continuously upgraded. I welcome input from students, alumni, and friends about changes that will provide a higher-quality educational experience for *all* of our students—but, in particular, for our growing number of undergraduate students.

Vernon Eidman

Department Recognizes Two Faculty for Their Service

Carole Yoho Retires in June



Carole retires June 30, 2002 after more than 40 years with the University of Minnesota Extension Service and the Department of Applied Economics. Carole joined Extension in September 1961 as assistant specialist/instructor and became a member of

the Department of Agricultural Economics when extension specialists were integrated into departments five years later.

Carole is widely known for the educational programs she developed and delivered over the years in public finance, and agricultural and food policy. Her programs have evolved over the years, addressing the important educational issues of the time within these two broad areas. The following examples are not allinclusive but indicate something of the range of her activities. She conducted programs on issues in financing public services during the 1960s, on state and local finance, property taxes and federal revenue sharing during the 1970s, and issues of financing education in 1989–92. Over the past decade, she has worked with the team in public finance and, more specifically, with the Fiscal Health Education Program. She also made major contributions to agricultural and food policy education over the years. In 1970 she delivered seminars on the politics of agriculture. In the mid-1970s she worked with the late James Houck and Barry Flinchbaugh (of Kansas State University) to develop a Food Policy Basebook. This work received the American Agricultural Economics Award for Quality of Communication in 1977. From 1977–1980 she co-chaired the Food Issues Task Force for Extension in Minnesota and continued to organize conferences and program lessons in this area throughout the 1980s. From 1994 to 1996 she served on the National Public Policy Education Committee, chairing the committee during 1995.

In addition to leadership in program development and delivery, Carole has been a leader in many of the organizational and social changes within Extension and within the department. She has served on many committees of both organizations, including the Extension Faculty Consultative Committee. Particularly noteworthy are her contributions in chairing the Extension Equal Opportunity Committee during 1974–1977, a period when the role of women in the organization was being redefined. Always a team player and always one to share any credit with her colleagues, we will miss Professor Yoho's quiet leadership in programming and in changing the University to better serve the public.

Here's to her retirement—a deserved reward for a job well done!

Erlin Weness Retires in July



Erlin Weness will retire on July 1, 2002 after working at the University of Minnesota for 34 years. Currently, Erlin splits his time 50-50 between the Southwest Minnesota Farm Business Management Association (SMFBMA) and the Univer-

sity of Minnesota Extension Service.

SMFBMA

Erlin's work with the SMFBMA in Nobles, Rock, Pipestone, and Faribault counties focuses on individual business analysis, income tax management, financial planning, decision-making, and how to market agricultural products. When he started with the SMFBMA in 1968, Erlin was the sole staff person and served about 160 members in 12 southwestern Minnesota counties. Under Erlin's leadership, the SMFBMA has grown and, today, a staff of 3 serves about 260 members and their families.

During his 34 years with the SMFBMA, Erlin's accomplishments were many. He was instrumental in the early adoption of technology by farmers and the SMFBMA itself. He developed and implemented the farm business enterprise analysis system. He encour-

aged members to use computers for farm record-keeping and information gathering—with the result that, today, over 75 percent of SMFBMA members use computers. And last, he developed and delivered daily or weekly e-mail bulletins to members. Under Erlin's leadership, the SMFBMA has remained viable, maintained—for the past 25 years—a waiting list of farmers wishing to join, and provided members with an excellent return on their investment.

Extension

During his 34 years with Extension, Erlin delivered numerous programs to farmers and other members of the community in southwestern Minnesota about how to transfer the farm between generations, income tax law, financial planning, business structure, and other farm management topics. In addition, Erlin developed and wrote hundreds of Extension fact sheets and articles on farm business management for the agricultural media, farmers, and others. Many of his recent fact sheets are available on the Web at http://swroc.coafes.umn.edu under "Farm Business Management."

Other Activities

During his career, Erlin was active on many community boards and committees in Worthington, Minnesota. He was the president of the National Association of Farm Business Specialists in 1991–1992 and, in 2000, received the University of Minnesota Extension Service Dean and Directors award for distinguished campus-based faculty.

Future Plans

When Erlin retires, he plans to continue his farm financial-planning work as a private consultant. His consulting business will provide unbiased farm, financial, and tax planning services. You can contact him at 1620 Pinewood Drive, Worthington, MN 56187; by phone at (507) 372-2660; or by e-mail at erlin@weness.com.

George W. Morse Appointed to Associate Dean Position



George Morse has been a professor and extension economist in the Department of Applied Economics since 1989 where he was responsible for resident teaching (including a Master's-level course on regional economic analysis), extension, and re-

search. His research emphasized regional economic impact models and several of these were turned into practical applications for the agricultural sector. George's extension courses focused on business retention and expansion programs and, more recently, he developed online extension courses about economic development. His work in business retention and expansion has been adapted nationally and in a number of other countries. In addition, George has provided a great deal of leadership to departmental faculty working in the area of regional economics and community development.

As associate dean and director, University of Minnesota Extension Service, George will provide leadership for the educational programs of the University of Minnesota Extension Service and assure that the important linkages between field staff, campusbased faculty, and the academic units are maintained and strengthened. He will also lead the management of administrative systems to ensure that personnel and resources are integrated and focused to accomplish priority work. George officially begins his new position July 1st.

Departmental faculty and students will miss George's energetic leadership of our resident and extension teaching programs in regional economics. However, we are pleased to see an individual with a strong academic background in teaching and research, as well as extension, selected for this position. Best wishes George! We look forward to having you return to the department after you have solved all of Extension's problems—or even sooner, if you wish.

Looking Back: Departmental History for 1979-2000

We are grateful to W. Burt Sundquist for updating the departmental history through the close of the century. The resulting publication, A History of the Department of Agricultural and Applied Economics at the University of Minnesota 1979–2000, complements an earlier publication, Agricultural Economics at the University of Minnesota 1886–1979, authored by Willard Cochrane.

The text of Burt's publication summarizes the evolution in teaching, research, and extension that took place during the 1980s and 1990s. Burt documents the objectives of each department head who served during the period, along with the changes in faculty and functional programs. In addition to the narrative, the appendices detail the changes in faculty, list the recipients of graduate degrees, and include a description of the undergraduate and graduate course offerings during the period. The appendices also note the mission and the role the several centers play in the department's overall program.

The final 20 years of the twentieth century was a period of substantial decline in hard money support and a period of substantial faculty turnover. Burt notes the department suffered "a decline of more than 40 percent in its real hard money budget from 1979 to 1999" and became much more reliant on external grants and contracts. The faculty lists indicate that only 7 of the 43 faculty in 1979–1980 were still among the 33 active faculty in 2000–2001. These changes in funding and the faculty turnover, in combination with other factors, led to dramatic changes in teaching, research and extension programs.

We hope those of you familiar with the department will enjoy Burt's musings and that you will find this a useful resource to check on some items of personal interest. You can obtain a copy on the Web at http://www.apec.umn.edu/wnew.html or by requesting a printed copy from the department at lletnes@apec.umn.edu.

Minnesota Farm Real Estate Sales: 1990-Present

Due to changes in editorial policy, we no longer prepare a separate farm real estate report in the *Minnesota Applied Economist*. Instead, we've created for your viewing pleasure a Web site (http://www.apec.umn.edu/faculty/sjtaff/salesstudy) full of graphs and tables summarizing sales over the past decade. (A printable version is also available for downloading.)

The Web site provides averages at the multi-county region and at the statewide levels of aggregation. Most of the data come from annual Minnesota Department of Revenue compilations of property transactions reported by county auditors. Sales prices are analyzed on a per-acre basis; the price includes not just land but also associated improvements, including structures.

If there is any single story to be drawn from these data, it is that using a single number as "the" price of land for any region or state can be misleading because there is a *huge* range in farm real estate prices throughout Minnesota. Thus, relying upon the movement of any single number—such as the mean—may mislead more than it informs. For example, figure 1 shows a chart that tracks regional average prices from 1990. For each region, each year's price is divided by its 1990 value, so what you see are movements relative to that base year. Prices in the North West region have been stagnant, on average, whereas those in the South East have increased nearly three-fold. You'd miss all this if you focused solely on the statewide average.

All of these data about farm real estate sales are available on my *Minnesota Land Economics* Web site at http://www.apec.umn.edu/landeconomics—as well as the site mentioned above. On the *Minnesota Land Economics* site you can analyze and/or download the data. I encourage you to visit both sites and try your own hand at land market analysis. -*Steven J. Taff*

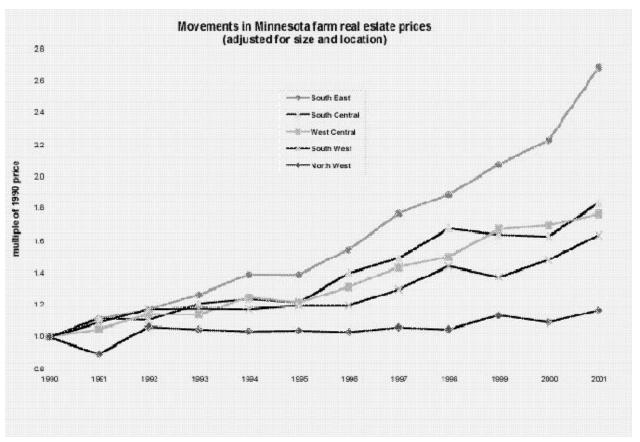


Figure 1

Teaching Theory with Applications

Applied Microeconomics: Managerial Economics (ApEc 3002) has been part of the core curriculum for our undergraduate majors since 1990. True to the spirit of our program, it emphasizes the combined use of economic theory and quantitative methods in analyzing managerial decisions. Professor Robert King taught ApEc 3002 this past spring. He drew on his expertise in food retailing and farm supply businesses to develop realistic lab assignments and class examples.

Here's a sampling of the issues his students tackled.

- Online grocery shopping with home delivery has received much attention in the trade press, but there are few examples of businesses that have offered such a service and made a profit. In a series of assignments based loosely on a local online grocer that does seem to have developed a formula for success, students used Census data along with hypothetical figures on price competition and deliveries by zip code to analyze demand for online grocery shopping and home delivery. They went on to use simulated data on weekly deliveries to forecast growth in demand for such a service. Later in the course they turned attention to the cost side of the business, analyzing the cost structure for warehouse and delivery operations and using linear programming to evaluate alternative delivery system configurations.
- In many locales, the market for farm supply products and services is only large enough to support one firm. Students used simulated cost and demand data for a crop scouting and advisory service to analyze pricing decisions and the number of acres scouted when that single firm is: (1) an investor owned firm that maximizes profit and (2) a cooperative that offers service at cost. This assignment sharpened students' skills in regression analysis, optimization, and breakeven analysis and offered an opportunity to introduce students to the cooperative form of business organization.

C Food manufacturers and retailers use special introductory offers and price promotions to gather data they need to make profitable pricing decisions. In a lab assignment designed to synthesize concepts from the entire course, King gave students data on output, costs, prices, and sales for a hypothetical retailer's 20-week market test of a new gourmet French bread. He asked them to recommend an appropriate price for the product. Here the focus was on specification and estimation of basic cost and demand functions and on effective, non-technical communication of results from an economic analysis.

ApEc 3002 helps our students see how they can use economic theory and quantitative methods in a real-world setting. It also helps them develop their skills in communicating economic information. These are key objectives for our undergraduate majors ... and they are central to everything we do as applied economists.

RECENT PUBLICATIONS

For information on locating a copy of a publication not available on the Internet, contact the underlined author at the department by calling 612-625-1222.

ANNUAL DEPARTMENT PUBLICATIONS LIST

For a complete listing of publications authored by department members for 1996–2001, visit the departmental Web site at http://www.apec.umn.edu/pubs.html. The lists are available in html or pdf formats.

GLOBAL PERSPECTIVES

Agricultural Productivity and Economic Growth in Support of Arthur Lewis? by <u>Terry Roe</u>. This paper shows that a key to the growth of a developing country's non-farm economy lies in increasing its agricultural productivity. As agricultural productivity is increased, the cost of food declines, savings rise, and capital deepening occurs that together, encourage labor to leave agriculture for higher-paying jobs in the non-farm sector. As the non-farm sector expands, the country be-

comes less dependent on primary factors of production for growth in incomes and, as foreign trade grows, technological spillovers from foreign direct investments and the importation of modern machinery and equipment cause technological change to grow in the non-farm sector. Paper presented at International Food Policy Research Institute Workshop on Advances in Modeling Economic Growth, November 27, 2001.

Agricultural R&D in Brazil: Policy, Investments, and Institutional Profile by Nienke M. Beintema, Antonio Flavio Dias Avila, and Philip Pardey. Brazil invests more in agricultural R&D than most other developing countries (except China and India) and many developed countries (including Australia, Canada, Italy, and the Netherlands). In 1996, Brazil employed more than 5,000 full-time equivalent researchers and spent more than \$1 billion (1993 international dollars) on agricultural R&D, that is, about one half of the total agricultural research spending throughout Latin America in that year. This paper describes and quantifies the investments in and institutional changes regarding the conduct and funding of public and private agricultural research throughout Brazil over the past two decades. Washington, DC: International Food Policy Research Institute, Empresa Brasileira de Pesquisa Agropecuaria; Regional Fund for Agricultural Technology, 2001.

Child Nutrition, Economic Growth, and the Provision of Health Care Services in Vietnam in the 1990s by Paul Glewwe, Stefanie Koch, and Bui Linh **Nguyen.** This paper examines the determinants of child health, as measured by height for age, in Vietnam in the 1990s. During the 1990s Vietnam had a very high rate of economic growth and it also experienced a significant improvement in child nutrition. The paper uses several methods to estimate the impact of income on child nutritional status and finds that increased income does not explain very much of the overall improvement. The paper goes on to examine the impact of the availability of health services and finds that some of them appear to explain part of the improvement in child nutrition. Washington, DC; World Bank, Policy Research Working Paper 2776.

Developing Country Interests in Agricultural Reforms Under the World Trade Organization by Xinshen Diao, Terry Roe, and Agapi Somwaru. This research shows that the agricultural policies of the European Union, the United States, Japan, and South Korea, in that order, seriously limit the access of poor countries to developed country's markets for fruits, vegetables, and other non-grain crops. Limiting the access of the poor countries to developed country markets for these commodities lowers their economic growth and development because of the resulting lower levels of foreign exchange earnings that they could otherwise spend on imports of more modern machinery and equipment to help develop their non-agricultural sectors. Presented at Allied Social Sciences Associations Meeting, Atlanta, GA, January 4–6, 2002, 21 pp., 2002.

Imperialism and Competition in Anthropology, Sociology, Political Science, and Economics: A Perspective from Development Economics by Vernon **Ruttan.** In this paper I draw on earlier work and on related literature to explore the conditions under which interdisciplinary imperialism or interdisciplinary collaboration can be most productive. I argue that when the objective of research is to advance fundamental knowledge in the social sciences, imperialism can be most productive. But where multiple sources of knowledge must be drawn on for policy, mechanism or system design interdisciplinary collaboration is essential. IN: The Expansion of Economics: Toward a More Inclusive Social Science, edited by Shoshana Grossbard-Schechtman and Christopher Clague. Armonk, NY: M.E. Sharpe, 2002, pp.49–67.

Management and Tranformation to a Market Economy: A Rapid Appraisal of State Farms in the Koszalin Voivodship, Poland by James Beebe, Kent Olson, et al. Many state farms (farming about 18% of the land and employing about 500,000 people) were failing as Poland was changing from a centrally planned economy to a market economy. To help identify solutions, a rapid assessment team conducted more than 110 hours of interviews and visited 10 state farms. As explained in this report, a major source of the problem was that many state farm directors did not fully understand how a market operates, especially in areas of risk, information, production vs. profits, price determina-

tion, and financial management. One of the team's main recommendations was for the advisory/extension services to 1) disseminate information on the more successful directors, 2) identify and provide the most important information that directors and farmers want, and 3) provide education for a better understanding of how to manage in a market economy. In *Rapid Assessment Process: An Introduction*. Walnut Creek, CA: Alta Mira Press, 2001, pp.161–164.

A New Vision for Agriculture and Rural Development on the Plains and Prairies of North America by Richard Levins. Farmers need to work together to build market power. For grain producers that cooperation will need to be global, not national, because buyers have consolidated into multinational corporations. Paper presented at GrainWorld 2002, Winnipeg, Manitoba, February 26, 2002.

The Payoffs to Agricultural Biotechnology: An Assessment of the Evidence by Michele Marra, Philip Pardey, and Julian Alston. Transgenic crops are relatively new and are being adopted rapidly in the United States and in a few other countries. The economic impacts of transgenic crops have, thus far, been estimated in a piecemeal fashion. The purpose of this study was to collect and characterize the economic evidence available to date, organize it, and determine if any general implications can be drawn from it. The general classes of economic impacts at the farm level are discussed. Washington, DC: International Food Policy Research Institute, Environment and Production Technology Division, 2002.

The Production and Diffusion of Policy Knowledge: A Bibliometric Evaluation of the International Food Policy Research Institute by Philip Pardey and Jason Christian. The published works of the International Food Policy Research Institute (IFPRI) represent the most immediate and tangible measure of the new policy-related knowledge attributable to the Institute, its staff, and research partners. This study provides a quantitative assessment of the number, nature, form, and use of IFPRI's published products since 1979 and compares and contrasts that with the publication performance of several similar agencies. Going beyond counting and classifying IFPRI's published record, we report the results of a bibliometric assessment of IFPRI

and the comparison of institutes for the period 1981 to 1996 using the publication and citation performance details recorded in the Institute for Scientific Information's (ISI) Science Citation Index and Social Science Citation Index data bases. Washington, DC: International Food Policy Research Institute, Impact Assessment Discussion Paper 14.

Productivity Growth in World Agriculture: Sources and Constraints by Vernon Ruttan. During the 1950s and 1960s it was not too difficult to anticipate the likely sources of increase in agricultural production at the global level over the next half century. Increases in crop production would come primarily from expansion in irrigated area, from more intensive application of improved fertilizer and crop protection chemicals, and from the development of crop varieties more responsive to technical inputs and management. I find it much more difficult to anticipate the sources of increase in agricultural production over the next half century. Staff paper P02-1.

[http://agecon.lib.umn.edu/mn/p02-01.pdf]

Recent Developments in the Conduct of Latin American Agricultural Research by Nienke M. Beintema and Philip Pardey. Following two decades of increasing investments, growth in public agricultural research spending in Latin America stalled during the 1980s, reflecting shrinking government contributions and declining donor support in the midst of general economic crises. Data for more recent years show some signs of recovery with an average rate of growth for an 11-country sample of 4 percent per year during the first half of the 1990s (compared with 1 percent during the 1980s). Nonetheless, this regional trend masks significant variation among the various countries. The regional averages are also heavily influenced by developments in Mexico and Brazil—two countries that accounted for almost two-thirds of total Latin American agricultural research investment in the mid-1990s. Paper prepared for the ICAST Conference on Agricultural Science and Technology, Beijing, China, November 7–9, 2001, 8 pp.

Schools, Skills, and Economic Development: Education Policies, Student Learning, and Socioeconomic Outcomes in Developing Countries by <u>Paul</u> <u>Glewwe</u>. Many schools in developing countries are of

poor quality. This paper provides a critique of this literature, focusing on potential problems of biased estimation. It concludes that most past research potentially has very serious methodological problems, which means that very little is known about what can be done to improve school quality in developing countries. Economic Development Center paper.

[http://agecon.lib.umn.edu/mn/edb01-03.pdf]

Segmented Capital Markets by Turnsynbek Nurmagambetov and Terry Roe. Many of the formerly centrally planned economies have poorly developed capital markets and tend to be far more effective in financing the development of large-scale natural resource enterprises and urban-sector base companies than in providing financial services to agriculture and smaller-scale enterprises in rural towns and villages. This paper shows that this uneven development can create an environment where some sectors of the economy are "capital rich" and induce investors to invest outside of the country, while other sectors of the economy are capital poor. If land markets are also poorly developed, this situation can give rise to a deterioration in the distribution of income and allows land ownership to become concentrated in the hands of a few. Paper presented at the International Food Policy Research Institute Workshop on Advances in Modeling Economic Growth, November 27, 2001.

The Supply Chain of Pork: U.S. and China by Chenjun Pan and Jean Kinsey. China is the largest pork producer in the world and slaughters five times the number of hogs as the U.S. In the U.S., 40 percent of hogs enters the market by way of a contract with a packer. In China, 80 percent of hogs are produced in the backyards of millions of households all over the countryside. The advent of retail supermarkets, higher incomes, and China's access to the WTO will, most likely, lead to an increase in the number of commercial pork operations that meet international standards for food safety and handling. The Food Industry Center Working Paper 02-01.

[http://agecon.lib.umn.edu/mn/tr02-01.pdf]

Water Markets, Water Rights, and Strategies for Decentralizing Water Management by <u>K. William Easter</u> and Robert Hearne. This chapter provides an assessment of the potential for market and government

failure and reviews the international experience with decentralized water management—including water user organizations and privatization of public water systems and water markets. The chapter concludes with lessons for the Mideast, based on the international experience with water markets and private-sector water management. IN: *Management of Shared Groundwater Resources: The Israeli-Palestinian Case with an International Perspective*, edited by Eran Feitelson and Marwan Haddad. Boston, MA: Kluwer Academic Publishers, 2001, pp.363–384.

Why Economics Matters for Endangered Species Protection and the ESA by Jason Shogren, Stephen **Polasky**, et al. Evidence suggests that Earth's species may be in the midst of a wave of extinction, disappearing at rates 10 to 1,000 times greater than background or natural rates of extinction. If we agree that the extinction problem is due to human action, modifying human behavior must be part of the solution. And yet the consistent neglect of economic behavior in the calculus of endangered species protection has led to ineffective and, in some instances, counter-productive conservation policy. This paper argues that endangered species preservation must take into account basic principles of economic behavior to avoid wasting valuable resources that yield no gain in species protection. IN: Protecting Endangered Species in the United States: Biological Needs, Political Realities, Economic Choices, edited by Jason F. Shogren and John Tschirhart. New York, NY: Cambridge University Press, 2001, pp.365-373.

ISSUES IN THE U.S.

Bt Crops and Insect Resistance: An Economic Assessment of Refuges by Terrance Hurley Bruce Babcock, and Richard Hellmich. The high efficacy and rapid adoption of Bt corn raises concerns about European corn borer resistance to Bt. This paper explores alternative strategies for reducing the risk of resistance using a simulation model to compare the effect of alternative strategies on pesticide use, agricultural productivity, and the risk of insect resistance. IN: Journal of Agricultural and Resource Economics, v.26, no.1, 2001, pp.176–194.

Building Contentment: Sharpening Your Co-op Communications Can Build Member Commitment and Better Reach Select Groups by David Trechter and Robert King. Member commitment is critical to the long-term success of cooperatives. The relationship of communication strategies to member commitment is of particular interest because communications practices are under the direct control of the cooperative. This article reports results from a study of member commitment and member communications strategies in Minnesota and Wisconsin cooperatives. The study focused on the links between the cooperatives' communications strategies and member commitment and on differences in member communications preferences. After controlling for member and cooperative characteristics, good communications with the cooperative manager and more frequent press releases were found to have significant, positive effects on member commitment. Communications preferences differ significantly with age, education, and level of involvement in the cooperative. Older, less-educated members prefer print communication, while highly educated members prefer electronic communications and informal discussions with cooperative employees. IN: Rural Cooperatives, v.69, no.2, March/April 2002, pp.24-27.

Can Economic Growth be Sustained? A Post-Malthusian Perspective by <u>Vernon Ruttan</u>. In this paper I present the results of a two-sector growth simulation constructed in the spirit of the Ricardo-Malthus classical model. The lesson of the simulation is that continued slow growth in productivity of the service sectors of the economy will result in a dampening of economic growth for the entire economy. An implication is that substantial slowing of growth in labor productivity and per capita income in the U.S. economy may be unavoidable, even in the absence of natural resource constraints. IN *Population and Development Review*, 18 (March 2002): 1–12.

Collective Bargaining by Farmers: Time for a Fresh Look? By <u>Richard Levins</u>. Market power is growing rapidly among corporations that buy farm products and sell supplies to farmers. Traditional approaches to farm profitability must be supplemented with strategies that build market power in the farm sector. IN: *Choices*, v.16, no.4, 2001, pp.15–18.

A Comparison of Taxonomic Distinctness Versus Richness as Criteria for Setting Conservation Priorities for North American Birds by Stephen **Polasky** et al. One strategy for conserving biological diversity is to establish biological reserves to conserve key habitats. Given limited conservation budgets, only a small fraction of potential reserve sites can be included in a biological reserve network. Should the objective in planning a reserve network be to represent the greatest number of species in the sites selected or to represent the greatest genetic diversity in the selected sites? Though conserving diversity may be preferable to species richness as a conservation goal, it is often harder to get data and implement such an approach. In this paper, we use genetic distances between bird species and distribution information for bird species from the Breeding Bird Survey to compare resulting conservation reserve networks when the objective is the number of genera represented versus the diversity of genera represented. We find that the different objectives produce notably similar results. IN: Biological Conservation, v.97, 2001, pp.99-105.

Corn and Soybean Price Outlook and Marketing Strategy for 2001 Production by Robert Anderson.

Corn and soybean producers can expect low prices throughout the marketing season for the crops produced in 2001. Low-risk strategies for corn marketing include taking the LDP in the fall and hedging for spring delivery, or locking in a low posted county price and selling on subsequent rallies. A low-risk strategy for soybeans is to sell cash soybeans early in the marketing year and replace these sales with call options to capture price increases. University of Minnesota Extension Service Paper, 2001.

[http://swroc.coafes.umn.edu/SWFM/Files/mrkt/mrktandstrat.htm]

Cows and Contentment by <u>Richard Levins</u>. Expanding urban areas should not overlook farming as a compatible land use. Many types of farming are compatible with such areas and can help preserve the rural character that people value so highly. IN: *Faribault Dairy News*, February 13, 2002.

Do Farmers Receive Huge Rents for Small Lobbying Efforts? By David Bullock and <u>Jay Coggins</u>. Federal outlays to U.S. agriculture are high and have been so for decades. How much of this largesse actu-

ally makes farmers better off? Less than it might seem at first, because a large portion of the benefits are capitalized into land prices. Expenditures are high, but maybe real benefits to farmers are not. IN: *Agricultural Policy for the 21st Century*, edited by Luther Tweeten and Stanley Thompson. Ames, IA: Iowa State Press, 2002, pp.146–159.

The Dynamics of Child Care Subsidy Use by Rural Families in Oregon by Elizabeth Davis and Roberta Weber. In rural areas, problems related to childcare availability and affordability are cited frequently as barriers for families trying to leave welfare. This study investigates the participation patterns of families receiving childcare assistance in Oregon as part of a larger five-state project. We find that patterns of childcare subsidy use are quite similar in rural and urban areas of the state, with employed families receiving assistance for longer periods than those who are in training or job preparation activities. IN: American Journal of Agricultural Economics, v.83, no.5, 2001, p.1293.

Education Credits/Deductions by Perry Fales and Robert Anderson. In recent years, both Congress and the Minnesota State Legislature have adopted new credits and deductions for educational expenses. Federal credits and deductions are focused on higher education. In contrast, Minnesota has focused on K–12 education expenses; most of these expenses can be claimed as a credit by lower-income taxpayers or as a deduction by higher-income taxpayers. University of Minnesota Extension Service 2001.

[http://swroc.coafes.umn.edu/SWFM/Files/edu/educredits.htm]

The Effects of Processing Margins on Cooperative Formation by Steve Holland and Robert King. The level of cooperation among farmers has fluctuated—sometimes dramatically—over time, across industries, and between geographic regions. While many factors are undoubtedly important to cooperative formation, this study formalizes the relationship between processing margins and new cooperative formation and provides a simple structure for analyzing farmers' cooperative membership decisions from a contingent claims approach. Paper presented at the Annual Meeting of the NCR-194, Research on Cooperatives, Las Vegas, NV, October 2001.

Electronic Systems in the Food Industry: Entropy, Speed, and Sales by Jean Kinsey. E-commerce in the food industry will likely result in more consolidation among firms and more vertical integration and cooperation. Network effects predict that information technology both facilitates and demands these type of changes in industrial structure. The two main barriers to rapid utilization of the full power of business-to-business e-commerce among food retailers are less-than-accurate scanner data and a reluctance to share that data with suppliers. The industry is slowly moving from entropy to efficiency. IN: Tracking a Transformation: E-Commerce and the Terms of Competition in Industries. Washington, DC: Brookings Institution Press, 2001, pp.253–279.

Entry Deterrence and Signaling in a Non-renewable Resource Model by Stephen Polasky and Okmyung Bin. In this paper we analyze the case of a non-renewable resource (for example, an oil or mineral resource) in which an incumbent firm faces the potential entry from a rival firm, each of which own the right to extract the resource from their own property. The incumbent has private information about its stock of the resource. The potential entrant can observe the extraction behavior of the incumbent and can infer how much stock the incumbent has and whether entry into resource extraction is likely to be profitable. The incumbent may choose to deter or delay entry by hiding information or by limiting extraction to maintain large remaining reserves. Using the model, we solve for various possible equilibrium strategies of the incumbent and the potential entrant. IN: Journal of Environmental Economics and Management, v.42, no.3, November 2001, pp.235-256.

For Small Farms, Household Income Safety Net Might be Better than Commodity Programs by William Lazarus. Traditional price support programs don't help small family farms very much. USDA-ERS economists have studied an alternative approach of basing payments on farm household net income or living standard instead of on commodity prices. This "household income safety net" approach deserves a look by those in the Minnesota farm community who are looking for alternatives to traditional farm programs. IN: *The Fruit Growers News*, Oct. 2001. [http://www.fruitgrowersnews.com/pages/2001/issue01_10/01_10_lazarus.html]

Integrating Modeling and Management of Agriculturally-Impacted Watersheds: Issues of Spatial and Temporal Scale by Patrick Brezonik, K. William Easter, et al. The project took a multi-disciplinary approach to studying the spatial and temporal scales at which landscape and socio-economic factors influence water quality degradation in the Minnesota River Basin. We found that highly agricultural watersheds can be more effectively managed if watershed boundaries are combined with agroecoregions to identify and target regions for specific BMPs to control nonpoint pollution. Water Resources Center Technical Report 141.

Supply Chains by Hamid Mohtadi and Jean Kinsey. This is an economic (game-theoretic) model that was developed to explain/predict the economic behavior of food retailers with respect to their suppliers as they adopt information technologies that allow for tighter

A Model of Information and I.T. Adoption in Food

adopt information technologies that allow for tighter inventory management. For example, the model predicts that under certain conditions, retailers may withhold valuable sales data from suppliers, even when there are clear benefits from supply coordination. The Food Industry Center Working Paper 02-02.

New Policy Goal Should be More Farmers, Not Fewer by Richard Levins. Farm policy has often stressed reducing the number of farmers as a way to increase the profitability of those that remain. We now have so few farms that protecting the environment and providing for the economic vitality of rural communities will be difficult. IN: *The Northern Star*, v.39, no.43, December 27, 2001, p.4.

The New Food Economy: Consumers, Farms, Pharms, and Science by Jean Kinsey. This is the presidential address at the AAEA annual meeting in August 2001. Traditional, linear supply/demand in the food system are compared to new webs of relationships made possible and necessary by global companies and by the increased use of information technology. A cycle of mergers and integration followed by spin-offs and outsourcing illustrates the "clockspeed" with which food and agricultural firms move depends on changing competition, technology, and demand. Agricultural firms appear to adjust faster than firms towards the retail end of the supply chain. IN: American Journal of Agricultural Economics, v.83, no.5, 2001, pp.1113–1130.

Only a Commodity? What's Going on Here? by Richard Levins. A commodity agriculture need not be unprofitable. But the road to profitability is not one of adding value. Rather, it is one of collective bargaining. IN: *Agri News*, v.27, no.17, April 25, 2002, p.A7 and presented at a Farm Meeting sponsored by the National Farmers Organization, Henning, Minnesota, April 5, 2002.

Paying for Public Services by Laura Kalambokidis.

Governments can choose among a number of financing mechanisms for public services, including charging fees to those who use the service. This article describes the conditions under which a public service provider might want to consider charging user fees. University of Minnesota Extension Service, Minnesota Public Finance Note 2001-02.

[http://www.apec.umn.edu/faculty/lkalambo/MNPFN2001-01.pdf]

A Preliminary Assessment of LOCIā Software by Laura Kalambokidis. The Local Economic Impact Analysis (LOCI©) software was designed to estimate the public costs and benefits of a new investment in a local economy and is intended for use by local governments, economic developers, and community groups. This preliminary analysis of the software explains a number of issues that should be considered when using LOCI© to estimate local economic impacts. University of Minnesota Extension Service, Minnesota Public Finance Note 2001-02. [http://www.apec.umn.edu/faculty/lkalambo/MNPFN2001-02.pdf]

Preparing for an IRS Audit by Erlin Weness. This publication provides a practical checklist of suggestions for preparing for a possible Internal Revenue Service (IRS) tax audit. It also contains information on items that can trigger an audit. University of Minnesota Extension Service, 2001.

[http://swroc.coafes.umn.edu/SWFM/Files/fin/irs audit.htm]

Recent Tax Law Changes: Provisions and Strategies by <u>Erlin Weness</u>. This publication outlines some of the major changes that have been put in place by the 1997 and 2001 Federal income tax law. University of Minnesota Extension Service, 2001.

[http://swroc.coafes.umn.edu/SWFM/Files/fin/taxlaw_changes.htm]

Ten Reasons to Worry About Agribusiness Mergers by Richard Levins. Mergers and acquisitions are commonplace among agribusiness corporations. Individual farmers need to assess what this means for them and look at new strategies for the future. IN: *Minnesota Agriculture*, v.46, no.1, January 22, 2002, p.3; *Successful Farming*, April 2002, p.64.

What Type of Farms Does America Want? by <u>Richard Levins</u>. Payment limitations in farm programs are a first step to limiting farm size. But we should go farther and decide which farms we want to support with government payments, and which ones we do not. IN: *Dodge City Daily Globe*, March 26, 2002; *Wise County Messenger*, Decatur, Texas, March 21, 2002.

Who's Got the Biggest SUV? Settle the Question with a Semi by <u>Richard Levins</u>. In this satirical piece, suburbanites are advised to consider semi trucks instead of SUVs. Semis may cost more and use more gas but they have significant advantages in size and safety. IN: *Star Tribune*, February 10, 2002.

REGIONAL TOPICS

Community-Wide Financial Impacts of Preferential Assessments for Farmland Properties by Steven Taff. The author estimates the magnitude and the geographic distribution of property tax impacts of the Twin Cities Metropolitan Area's two farmland protection programs. These "tax breaks" were necessarily matched by tax increases for all property owners, both participants and non-participants, but the pattern of these "tax shifts" does not match the pattern of tax breaks. Staff paper P02-3.

[http://agecon.lib.umn.edu/mn/p02-03.pdf]

The Distribution of Transportation Costs in the Twin Cities Region by David Anderson and Gerard McCullough. Households and firms in the Twin Cities region receive significant benefits from motor vehicles through production efficiencies and access to work and leisure activities. This study assesses how the full social cost of motor vehicles use is spread across the seven-county metro area and 12 adjoining counties. The full costs include governmental, environmental, and safety costs as well as out-of-pocket expenses and value of time. Transportation and Regional Growth Study, 2001.

Do We Need a Milk Marketing Board in Minnesota? by Richard Levins and William Lazarus. A milk marketing board is one method state government could use to insure that family-sized dairy farms receive fair prices for their products. IN: *Dairy Star*, March 9, 2002, p.4; *AgWeek*, v.17, no. 31, March 11, 2002, p.3; and *Minnesota Agriculture*, March 19, 2002, p.3.

The Economics of Dairy Facility Modernization by William Lazarus. This paper compares installing a low-cost parlor in an existing barn versus building an all-new facility. Utilizing the existing building may permit increased labor efficiency with less capital investment. While a larger all-new facility offers economies of size, capital demands are greater and it places the operator more in the role of a "people manager." IN: *Minnesota Dairy Days 2002*, January 8-18, 2002, St. Paul, MN; Department of Animal Science and Minnesota Extension Service, pp.15–20.

Flexible Crop Cash Rents by <u>Erlin Weness</u>. This publication describes several methods of determining farmland cash rents based on yield or price, or a combination of both. Variable cash rented leases are an alternative to cash rents and are used when tenants and operators wish to share the risks associated with crop production. University of Minnesota Extension Service, 2001. [http://swroc.coafes.umn.edu/SWFM/Files/fin/cash_rents.htm]

Funding Extension Services with User Fees by Laura Kalambokidis. This article addresses the question of whether Extension programs should be funded with user fees. The answer depends on the public good characteristics of the individual program, the administrability of fees, the maturity of the program, the program's audience, and the goals of the Extension Service. University of Minnesota Extension Service Minnesota Public Finance Note 2002-01.

[http://www.apec.umn.edu/faculty/lkalambo/MNPFN2002-01.pdf]

Generic Environmental Impact Statement on Animal Agriculture in Minnesota: Final Technical Working Paper on Topics D, E, and F. Economic Structures, Profitability and External Costs by William Lazarus, Steffanie Guess-Murphy, Richard Levins, George Morse, et al. This paper discusses 1) the geography and size-distribution of the Minnesota livestock industry, 2) the phosphorus balance on farms with state feedlot permits, and 3) forces affecting structural change in the Minnesota livestock industry, along with an updated literature review on industry structure, profitability, and external costs and benefits. Minnesota Environmental Quality Board, 2001. [http://www.apec.umn.edu/faculty/wlazarus/livstpolicy.html]

Market Outlook by Ward Nefstead. The proceedings of the Annual Meeting of the Minnesota Chapter of the American Society of Farm Managers and Rural Appraisers include presentations that were part of the educational program held January 30 to February 1, 2002 at the Mystic Lake Casino Hotel. The educational program was planned by the Executive Board of the Minnesota Chapter and included presentations by Matt Smith (Minnesota Department of Revenue), Linda Taylor (Deputy Commission for Energy at the Minnesota Department of Commerce), and a 2002 Farm Bill update by Gary Wertish (representing Senator Mark Dayton). Other presentations in the proceedings include MPCA regulations for livestock producers and leasing by Agribank personnel, selected topics in conservation appraisal and real estate, and a commodity/land rental outlook by Ward Nefstead and Leon Carlson. IN: Minnesota Chapter of the American Society of Farm Managers and Rural Appraisers, Inc. Proceedings of Annual Meeting, Mystic Lake Casino/Hotel, January 30–February 1, 2002.

Southeastern Minnesota Farm Business Management Association 2001 Annual Report by Kent Olson, Lorin Westman, and Dale Nordquist. The average net farm income was \$60,978 for the 59 farms included in the southeastern farm report. This was a decrease of 21% from 2000. Government payments of all types averaged \$40,227, down from \$50,496 in 2000. Both the rate of return on assets and the rate of return to equity decreased. The average debt-asset ratio was down slightly to 34%. Staff Paper P02-4. [http://agecon.lib.umn.edu/mn/p02-04.pdf]

Southwest Minnesota County Farm Land Prices, 1993–2001 by Erlin Weness. Farmland prices in southwestern Minnesota are increasing. This publication describes the sale price of farmland from 1993 to 2001 in 10 southwestern Minnesota counties and shows a compilation of actual farm sales during the first six months of each year. University of Minnesota Extension Service, 2001. [http://swroc.coafes.umn.edu/SWFM/Files/fin/01_farmlandpr.htm]

Southwestern Minnesota Farm Business Management Association 2001 Annual Report by Kent Olson, Erlin Weness, Robert Anderson, James Christensen, Perry Fales, and Dale Nordquist. The average net farm income was \$36,614 for the 207 farms included in our report. This was a sharp drop of 55% from 2000. Government payments of all types averaged \$48,208, down from \$50,567 in 2000. Both the rate of return on assets and the rate of return to equity decreased substantially. The average debt-asset ratio remained unchanged at 47%. Staff Paper P02-5. [http://agecon.lib.umn.edu/mn/p02-05.pdf]

The Tale of Two Heifer-Raising Systems by Margot Rudstrom. An on-farm research trial compares the costs of raising growing dairy heifers on pasture and in a feedlot. Both systems had similar rates of gain. Production costs were lower in the pasture system. IN: *Minnesota Dairy Days*, January 8–18, 2002, St. Paul, MN; Department of Animal Science and Minnesota Extension Service, pp.67–70; and *Dairy Initiatives*, v.11, no.1, Spring 2002, p.10.

[http://www.ansci.umn.edu/dairy/dinews/11-1-heiferraising.htm]

Targeting Nonpoint Source Pollution Control: Phosphorus in the Minnesota River Basin by John Westra, K. William Easter, and Kent Olson. We examined the cost-effectiveness of targeting versus not targeting specific practices or regions within a watershed for controlling nonpoint phosphorous pollution from agriculture. Our results indicated that targeting in the Minnesota River Basin could reduce potential transaction costs and compensation from "takings" by approximately \$50 million—a 74 percent reduction over not targeting. IN: Journal of the American Water Resources Association, v.38, no.2, April 2002, pp.493–505.

Center Feature: Center for International Food and Agricultural Policy

The Center for International Food and Agricultural Policy (CIFAP) allows faculty in the Department of Applied Economics to coordinate their resources and focus on important international policy issues related to food, agriculture, nutrition, natural resources, and the environment. The Center promotes international understanding of these important issues in both developed and developing countries through research and other educational activities, and strives to promote better food and agricultural policies world-wide.

Current Activities Sponsored by the Center

The Center has a distinctly international focus and helps departmental faculty and students conduct research and collect data in many parts of the world. For example, in the past year, the Center supported the following international projects.

- Departmental faculty visited India and Uganda to discuss exchange agreements.
- Four departmental faculty members received awards to travel to Olsztyn University in Poland to teach courses in agribusiness management as part of Olsztyn University's executive Master's degree program.
- Faculty and students from South Africa, Italy, Sri Lanka, and Israel visited the Department as part of the Center's international exchange program.
- Several students in the department received awards for outstanding writing, study and research overseas, or travel to international conferences. (Each year the Center makes awards to graduate students totaling about \$20,000.)

On-Going Global Exchange Programs

Sponsoring faculty and student exchanges are an important part of the CIFAP's mission. Currently the Center has official exchange agreements with the following institutions: University of Padova and a consortium of Italian universities in Bologna, Florence, Milan, and Perugia; Humboldt University in Berlin, Germany; Olsztyn University in Poland; Swedish University of Agriculture in Uppsala, Sweden; International Food Policy Research Institute in Washington, DC; Tamil Nadu Agricultural University in Coimbatore, India; University of the Free State in Bloemfontein, South Africa; International Water Management Institute in Colombo, Sri Lanka; and CATIE in Turrialba, Costa Rica. Besides exchanging faculty and students with these organizations, other activities include meeting at international conferences and creating joint working papers.



l to r: Prof. Donald Liu, CIFAP Steering Cmte member; Sabrina Di Pasquale, visiting Ph.D. student from Italy; Mary Beth Lake, M.S. student funded by CIFAP; and Prof. K. William Easter, CIFAP Director.

Recent International Activities

Between 1989 and 2000 the Center worked closely with the University of Padova and four other Italian universities to organize seven conferences known as the "Joint Conferences on Food, Agriculture, and the Environment." (The eighth conference will be held in Wisconsin in August of this year. Currently about 45 researchers are coming from Italy, Poland, and Minnesota to present papers.) Since its founding in 1988, the Center has sponsored visiting faculty from Italy, Poland, South Africa, Germany, India, Israel, China, Costa Rica, and Sweden.

To learn more about the Center and its programs, visit http://www.apec.umn.edu/cifap.html, or contact the Center Director, K. William Easter, at weaster@apec.umn.edu.

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Send comments, suggestions or address changes to Melissa Sullivan, Department of Applied Economics, University of Minnesota, 1994 Buford Ave., St. Paul, MN 55108-6040. (612) 625-1222, msulliva@apec.umn.edu

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Crop Check - Your Free On-line Coffee Shop

Okay, you'll have to supply your own coffee and that friendly banter with the wait-ress won't seem quite the same, but the new web-enabled Crop Check software will give you a chance to sit down with your peers at a virtual café booth and compare this past year's soybean and corn production.

Crop Check is a cooperative effort between the Iowa Soybean Association and the Center for Farm Financial Management in the Department of Applied Economics. Because Crop Check is partially funded with soybean check-off dollars through the North Central Soybean Research Program, it's *free* to producers. All you need to do to join in, is register, install the Windows-based program on your computer, complete the data entry, and submit your data via a secure Internet connection.

Then the real fun begins. (We're university types and have low entertainment thresholds.) Crop Check's benchmark reporting features allow you to choose the criteria you wish to evaluate and the peer group you wish to compare your farm against. You can view the results as either thermometer charts or as graphical representations.

As mentioned earlier, Crop Check is free, so go towww.cropcheck.org to sign-up and download your copy today. Currently, over 700 people across the country have downloaded the software. The database is growing every day. Oh, and remember to bring the coffee.

