

# Extension Education Symposium: Reinventing Extension as a Resource—What Does the Future Hold?

**41 National Institute of Food and Agriculture (NIFA) grants and extension: Expectations for integrated projects.** M. A. Miranda\* and K. M. Whittet, *National Institute of Food and Agriculture, U.S. Department of Agriculture, Washington, DC.*

The Food, Conservation, and Energy Act of 2008 (Public Law 110–246, i.e., the 2008 Farm Bill) established NIFA within the USDA and the Agriculture and Food Research Initiative (AFRI) within NIFA. AFRI is the USDA's largest competitive grants program and is authorized at a funding level of \$700 million; however, Congressional appropriation to AFRI in fiscal year 2010, its second year of existence, was approximately \$262 million. The Farm Bill requires NIFA to expend at least 30% of the funds appropriated to AFRI in support of projects that integrate at least 2 of the 3 functions of the agricultural knowledge system (i.e., research, education, and extension). In fiscal year 2010, approximately 44% of AFRI funds were expended on integrated projects. Programs supporting integrated projects are located primarily within the 5 AFRI Challenge Area requests for applications. Strong integrated project proposals are stakeholder driven, issue focused, and outcome based. Applications for integrated projects must include the elements of a logic model detailing the activities, outputs, and outcomes of the proposed project. Integrated proposals should contain objectives for each function of the project and no more than 2-thirds of the budget may support a single function. For proposals integrating research and extension, applied research integrates best into an extension program. Integrated extension and research applications can propose extension programming as the first objective(s) and social science research to evaluate and report on the effectiveness of the extension programming (e.g., did the extension program result in behavioral change of the target audience). Peer review panels for all AFRI programs soliciting integrated projects are required to have substantial representation by individuals with expertise in extension. In programs that solicit both research and integrated project proposals, the 2 types of applications are evaluated separately because of the distinct nature of the 2 types of proposals

**Key words:** competitive grants, extension, integrated projects

**42 Integrating extension and research projects.** D. J. Patterson\*, *University of Missouri, Columbia.*

Projects that integrate extension and research are required to be outcome oriented, stakeholder driven, and problem focused. These expectations create opportunities to generate new knowledge and apply existing knowledge quickly. This approach and the synergy that results from it parallel the fundamental basis upon which extension and the Land Grant System were founded: The use and application of what we know to create knowledge. Integrated projects are and will continue to be essential in the transfer of new agricultural technologies that involve complex biological systems and their associated economic impact related to industry adoption. Furthermore, as research leads to the development of even more sophisticated and complex technologies that fewer people understand or perhaps trust, the need for highly trained professionals that are capable of serving a dual role in research and extension will become even greater. Our approach was to focus on an integrated plan to augment our current understanding of reproductive biology and manipulation of the estrous cycle in the beef heifer, concomitant with the transfer of existing methods that precisely

control the time of ovulation relative to fixed-time AI in postpartum beef cows. The specific aims of the project were based on the economic need to improve the competitive position of the US beef industry through an increase in adoption of reproductive procedures that facilitate improvements in reproductive management and adoption of AI. We focused our efforts on integrating the fundamental aspects of control of the estrous cycle in beef cattle with wide-scale application of the technology in the field, both of which are required to enhance competitiveness of the US livestock industry. Justification for this approach centered on the concern that continuation of low adoption rates of these technologies in the US will ultimately erode the competitive position of the US cattle industry. The specific aims of the project facilitated implementation of integrated animal production systems that will contribute to sustainability of beef cattle production and are key to future application of biotechnologies in the beef cattle sector.

**Key words:** extension, integrated projects, research

**43 The role of eXtension in delivering research results to producers and allied industry partners through a national platform.** D. M. Amaral-Phillips\* and N. L. McGill, *University of Kentucky.*

Today, more than ever, researchers, university instructors, and extension educators need to truly embrace national collaboration to deliver cutting-edge, research-based information and educational programs to our clientele. This collaboration can result in the development and implementation of solutions to problems facing animal agriculture across the United States. eXtension offers the national platform necessary to develop and deliver such integrated programs to these end-users including, but not limited to, producers, allied industry partners, extension and instructional educators, and consumers. Resource materials and educational programs can be delivered via interactive forms such as eXtension's Ask the Expert tool, webinars, live chats, and blogs, or through more classical information delivery systems such as learning lessons, videos, written articles, research summaries, decision aids in the form of spreadsheets, and frequently asked questions. All of these resources are designed to deliver the very best research-based, peer-reviewed information, which is available 24/7 from any internet-ready device. At the current time, resources through eXtension (and supporting communities of practice) are available on animal manure management, beef cattle, dairy cattle, goats, horses, swine, organic farming, and small meat processors, with additional livestock commodities to be added in the future. To learn more about the materials available to the public through eXtension, visit [www.extension.org](http://www.extension.org). Each of the commodity groups looks forward to collaborating with research, industry, and educational partners through integrated grants (information can be found at <http://about.extension.org>) or integrated projects.

**Key words:** extension, integrated grants, resource materials

**44 How can extension use media to connect to and maintain connections and conversations with farmers, ranchers, and producers?** J. Blue\* and N. Arthur, *Truffle Media Networks, Indianapolis, IN.*

Americans are increasing their use of the internet for news and information. Forty-four percent of Americans say they got news through

one or more internet or mobile digital sources (PEW, 2011). This trend will continue in the foreseeable future. American's use of Facebook and Twitter is also increasing (PEW, 2011), paralleling the digital news consumption. In agriculture, there are numerous groups and individuals using Facebook, Twitter, and LinkedIn. These data provide support for communications plans and actions Extension can develop to connect with their constituents. Extension needs actionable information and resources to address: finding who are producers in the audience, implementing approaches to managing producer / extension connections, locating places on the internet to develop and maintain connections with farmers and ranchers, learning when to stop using one tool and start using another, and discovering what value there is to agriculture and Extension in caring about new, social, and participatory media. In agriculture, more than 80% of large producers are connected with broadband, providing the ability to receive lots of information and make faster decisions. Roughly half the principal farm operators are over 45 years old. Conversely, just under half the principle operators are under 45 years old and their numbers are growing. Digital information means people can read, listen, watch, or participate when they want, where they want, and how they want. For audio and visual media, the number one reason for listening or watching a new media series is flexibility in time. However, new tools are constantly being created to help connect like-minded people to common interests or causes. Three years ago Foursquare, Quora, and Groupon did not exist. Three years ago Twitter and Facebook, combined, had less than 50 million registered users. Saying what will happen with media and communication tools in the next 3 would be very speculative. However, there are approaches for Extension, and others in agriculture, to discover, grow, and maintain connections with farmers and ranchers.

**Key words:** communication, digital media, new social participatory media

#### **45 Opportunities and challenges associated with the use of technology in extension programming.** J. M. Bewley\*, *University of Kentucky, Lexington.*

For extension to remain a viable resource for producers in the future, extension educators will need to determine how to best incorporate new technologies into extension programming. Resources such as webinars, social media, online video sharing, blogs, listservs, phone applications, and online document search engines provide new ways to reach extension clientele. In a 2008 survey of Kentucky dairy producers, respondents were asked to identify their preferred delivery method. The most effective delivery methods were printed farm magazines (81.0%), agricultural newspapers (77.4%), printed newsletters from county agricultural agents (75.7%), printed newsletters from university extension (65.0%), and local or regional meetings (55.8%). The least effective delivery methods were university Web sites (11.9%), indirect access through allied industry consultants (11.5%), webinars (2.7%), podcasts (0.4%), and blogs (0.4%). In transitioning to electronic communication methods, it is important to remember that building personal relationships with producers has been an integral part of what has made the Cooperative Extension Service so successful over the past century. People are much more likely to open an email message or attend a webinar if they know the person who is delivering it. Precision Livestock Farming technologies used for physiological and behavioral monitoring of animals also provide an opportunity for extension professionals to demonstrate concepts and conduct applied research projects. For example, Kentucky researchers have used lying behavior monitors as a tool in cow comfort demonstrations and multi-herd research projects. Visual analytic dashboards and spreadsheets can be used to help producers make more informed and economically sound decisions. Lastly, extension professionals can play a critical role in helping producers improve their technical capabilities through training programs for Internet resources, spreadsheet decision making tools, farm-specific software, and Precision Livestock Farming technologies.

**Key words:** extension, internet, technology