NEW PROPOSED USDA ACTIVITIES IN RESPONSE TO RECOMMENDATIONS FROM THE USDA ADVISORY COMMITTEE ON BIOTECHNOLOGY AND 21ST CENTURY AGRICULTURE (AC21)

New Economic Research Service (ERS) study underway on the economic implications of coexistence

ERS is planning to publish a report this year that broadly examines the economic issues related to coexistence of organic, genetically engineered (GE), and non-GE crop production and processing, including adoption trends for these crops and their identity-preserving differentiated product markets and labels. American consumers continue to fuel a fast-growing market for organic food, as well as a burgeoning market for non-GE conventional products, and there is continued strong domestic and international demand for commodity crop production, much of which involves GE crops. The potential for GE crop production to impose costs on organic and non-GE conventional production, via accidental pollination and other mechanisms, illustrates the problem of coexistence between GE-differentiated crops.

Gathering information from farmers about actual economic losses incurred as a result of unintended GE presence

The 2014 Organic Survey is a collaborative effort between USDA's National Agricultural Statistics Service (NASS) and its Risk Management Agency (RMA). The population of interest is those producers certified as meeting the USDA standards for organic production, those exempt from certification, and those transitioning to certified organic production. In the survey, among many other questions, respondents are asked to answer questions related to economic losses received from unintended presence of GMO material in an organic crop produced for sale. Results from the survey will be published on August 31, 2015.

Development of a USDA Coexistence Education and Outreach Strategy

USDA has developed a draft USDA Coexistence Education and Outreach Strategy. The goal of the strategy is for all producers to recognize the interconnectivity of their cropping practices. In addition, several USDA agencies and the private sector have personnel with experience in promoting local voluntary solutions that address gene flow at the county and community level. These local solutions and individuals who have experience in implementing them may be mobilized through existing information and communication systems (e.g., the Cooperative Extension System (extension.org), National Sustainable Agriculture Information Service

(attra.ncat.org), and the Sustainable Agriculture Research and Education Program (sare.org)) as well as other entities. USDA will be inviting input and collaborators for the strategy as it is finalized.

Development of updated procedures and best management practices for GE traits in plant germplasm and breeding stocks

The Agricultural Research Service (ARS) is in the process of revising and updating Agency-wide procedures and practices for handling GE traits and unintended presence of the latter in USDA/ARS crop breeding stocks and genebank collections. The procedures and practices focus on the five major crops with widely cultivated varieties that incorporate deregulated GE traits: cotton, maize, soybean, alfalfa, and sugarbeet. These procedures and practices will encompass five major elements:

1. Well-documented, reviewed, and accessible best management practices (BMPs) for maintaining seed purity in both breeding and genebank programs.
2. Testing for purity at critical control points.
3. Mandatory purity testing of new varieties or enhanced germplasm prior to formal release.
4. Guidelines for mitigating the effects of unintended presence of GE traits in breeding stocks and germplasm accessions.
5. Communication strategies for disseminating information about Agency procedures and practices and for handling future occurrences of unintended presence of GE traits.

Work with seed industry on providing additional information to farmers at the point of seed sale

USDA is working with the American Seed Trade Association: to ensure the availability of seed to meet grower demand for the GE, identity-preserved non-GE, and organic markets; and to provide additional information to seed purchasers about best production practices for coexistence at the time of seed purchase.

Provision of informational materials describing voluntary and outcome-based strategies for facilitating production of all types of identity preserved products

Information will be provided about the use of pinning maps, grower zones, screenable markers, pollen-excluding traits, and procedures in place in the organic industry to prevent commingling and unintended presence. [In addition, a paper

will be offered for information describing some of the parameters around, and viewpoints relating to, the use of marketing thresholds.]

Toolkits providing resources that encourage communication, planning, and crop-specific practices to reduce unintended gene flow or post-harvest mixing, as well as information on contract issues and incentives

USDA will host a new Web site devoted to informational resources about coexistence. The site will consolidate and present coexistence-related information and resources from across all USDA agencies, as well as partners in the States, industry, and scientific communities. Content on the site will help support continued discussion and engagement regarding agricultural coexistence. A series of new factsheets that define agricultural coexistence, explain its importance, and highlight key aspects supporting coexistence in different sectors of U.S. agriculture will be added to the site in the near future. Beyond that, USDA will explore developing additional toolkit products for the Web site that will support ongoing dialogue about coexistence and encourage adoption of best practices. USDA looks forward to expanding the information and resources for the Web site, as well as ideas about additional toolkit products that are needed to help advance coexistence.

Potential use of AMS Process Verified Programs to verify non-genetically engineered crops/processes

The USDA Process Verified Program provides companies that supply agricultural products or services the opportunity to assure customers of their ability to provide consistent quality products or services. It is a fee for service program and is limited to programs or portions of programs where specified process verified points are supported by a documented quality management system. The specified process verified points are identified by the supplier. Companies with approved USDA Process Verified Programs are able to make claims associated with their process verified points and their verified process points are documented and available for public view on the AMS website. The USDA Process Verified Program does not relieve the company of meeting regulatory requirements issued by other Federal Departments or USDA Agencies.

USDA's Animal and Plant Health Inspection Service (APHIS) initiative to encourage analyses of, and means to address, coexistence challenges for new products

APHIS could encourage applicants to provide a conflict analysis (CA) prior to or concurrent with submitting a petition for determination of non-regulated status of

genetically engineered (GE) plants. The CA could be used by USDA in developing the socio-economic impact portion of a NEPA analysis, helping both to facilitate timely NEPA analysis, and to address a broad range of potential conflicts. Development of a CA will be most useful for 1) species that do not currently have commercialized GE traits or 2) new traits that may pose new concerns in species that already have widespread use of GE traits. Some or all previously approved products and similar products may not benefit from a CA as new coexistence issues may not be raised for these products. A range of incentives could be offered for provision of such analyses. If a developer lacks the resources or otherwise does not prepare a CA, the USDA could prepare one under a yet-to-be-determined mechanism. If the conflict analysis identifies significant concerns, USDA could encourage applicants to provide a coexistence plan (CP). As the CA would be considered in the socio-economic impact portion of NEPA analysis, the CP could demonstrate mitigating factors to reduce potential impacts. A CP would detail approaches to solve or mitigate concerns identified in the CA.

Potential use of conservation programs in some instances to facilitate farmers' measures to promote coexistence

Although AC21 recommended that USDA encourage the development and use of joint coexistence plans by neighboring farmers through crop insurance or conservation incentives, USDA may not currently have the legal authority to directly support and monitor such activities as a general matter. In addition, conservation programs administered by Natural Resources Conservation Service (NRCS), and the practices used to implement conservation, must focus on natural resource concerns. Although genetic isolation is not a natural resource concern, there may be occasional opportunities where producers can mutually achieve conservation and coexistence goals. However, because NRCS does not have the expertise for addressing genetic isolation issues, it would need to rely heavily on USDA and university scientists for the needed technical information. With this information, NRCS could consider the potential usefulness of its conservation practices in some circumstances to address coexistence concerns, and application of the practices could be attempted first on a localized, pilot-scale basis.