PROPOSED NATIONAL SUSTAINABILITY STANDARDS: IMPLICATIONS FOR THE AGRICHEMICAL AND FERTILIZER INDUSTRIES

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From environmentally-concerned groups to buyers, retailers and consumers, "sustainability" is certainly the current buzzword in many industries, including agriculture. Several retailers and agricultural industries are independently developing sustainability standards, indices, and certification programs for their businesses and others throughout the supply chain. Additionally, national sustainability standards, which would ultimately encompass all agricultural crops, have been proposed or are in development by multiple groups. The intent of this presentation is to give an overview and update on national sustainability standards, and to outline potential implications on Wisconsin's agricultural industries.

While the concept of sustainable agriculture has been a point of discussion for several years, the desire to use it as a marketing tool or to add value to products in the marketplace is a relatively recent development. Individual retailers and suppliers, such as Walmart, are developing sustainability scorecards and standards. For example, McDonald's recently agreed to comply with a shareholder request to look at ways to reduce pesticide use in potatoes and document such progress. As a result, growers may be required to fill out several surveys to sell to multiple buyers, in addition to current requirements for good agricultural practice (GAP) surveys.

In response, multiple entities are developing national standards that would be applicable to agriculture in general and could be used to certify agricultural production with a single survey, thus reducing the duplicative efforts required to satisfy multiple buyers. Three national sustainability standard efforts are now taking place: the Field to Market efforts led by the Keystone Center, the Stewardship Index for Specialty Crops, and the American National Standards Institute efforts organized by Scientific Certification Systems.

Scientific Certification Systems developed the "Draft American National Standard for Trial Use for Sustainable Agriculture." This standard was proposed to the American National Standards Institute (ANSI) in 2007, an organization that develops and implements voluntary standards for a variety of industries. The Leonardo Academy, a Madison-based organization accredited by ANSI, is leading the standard development process. After an initial meeting of the Standards Committee in September 2008, the initial draft standard will be re-tooled. Those critical of the initial draft standard have cited two primary issues: (1) the standard set organic production as the highest level of sustainability, and may in fact be duplicative of current organic standards in many areas, and (2) the initial standard prohibited the use of genetically modified crops. The groups involved in this standard development are in the process of developing a new draft standard.

The Keystone Center Field to Market group consists of entities with varying interests, including several food and fiber national commodity groups, environmental organizations, end-users and retailers, and academia. The goal of this group is not to develop a certification system, but to develop a grower tool that can be used to gauge production and sustainability metrics relative to neighbors, regional and national producers of a given crop. The proposed tool would allow growers to identify potential areas of improvement as well as to follow sustainability trends through time in terms of production efficiency per unit of production area. The Keystone Center

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participants are currently investigating methodology and feasibility of quantifying sustainability parameters, such as water quality and energy use, at the grower level. The focus of this group is on major agronomic crops, such as cotton, corn, soybeans and wheat.

The Stewardship Index for Specialty Crops has taken an approach analogous to the Keystone Center, but with a focus on specialty food crops. The approach is outcome-based and not practice-based, and has focused on self-evaluation instead of certification. This group has organized several well-attended webinars and educational venues on parameters that would be included in the people, planet and profit parameters of sustainability.

While these efforts and others are currently very active, quantifying agricultural sustainability poses many challenges:

1. Agriculture is a complex biological system overlaid with an equally complex management system. Therefore, an inclusive standard across regions and crops is logistically challenging.
2. Quantifying sustainability could be costly, particularly with parameters such as water quality, where there is no substitute for expensive laboratory analyses.
3. At some point, participants or leaders may need to weight parameters in order to make difficult choices. This will raise questions of differing values systems. For example, which is more important: preserving rural farmland or preserving water?

Many involved have indicated that, ultimately, consumers will determine the success of such programs. So, will consumers pay for sustainability? The Healthy Grown potato program in Wisconsin provides an interesting case study. The Healthy Grown potato program is a unique collaboration among growers, academics and environmentally-oriented NGOs. The research-based program was built with over 20 grants totaling $2.7 million, about $200,000 per year in research support directly from growers, and about 15 to 20 researchers involved through time. In terms of documenting and improving "sustainability" parameters, Healthy Grown has been a great success. Between 2001 and 2005, IPM adoption increased 30 to 40% while pesticide toxicity scores decreased. The program is third-party certified by Protected Harvest and is rigorous. In 2006, only 35% of participants passed the minimum level for certification. In market surveys, 70% of consumers said that they were likely to purchase Healthy Grown potatoes, and of those, 88% indicated that they would pay $0.25 more than standard potatoes. However, in 2004 and 2005, only 1% of the certified crop was sold as Healthy Grown. It appears that there is a strong disconnect between what consumers say they will buy and what is actually riding around in their grocery carts.

The measurement of "sustainability" parameters, such as the carbon footprint, has been successfully adopted in industrial processes; however, there are a couple of key differences between these efforts in industry versus agricultural production. First, the parameters often surveyed in industrial processes can be and are currently quantified with something as simple as a meter, such as electricity, natural gas and water usage, whereas those proposed for measurement in agriculture are much more nebulous, such as fair labor, rural community value and biodiversity. Second, the outcome of measuring these parameters in industry is often an implementation of efficiencies that slow the meter down - i.e. quantifying sustainability saves money. We have not yet been able to demonstrate a similar relationship in agriculture.