



## U.S. SOY SUSTAINABILITY ASSURANCE PROTOCOL (SSAP)

“Sustainability” as it pertains to agriculture is an oft-used, -overused, and -misused term to describe the agriculture sector’s ability to continue to produce food and fiber at an environmentally and economically sustainable pace. Regrettably, many pundits tend to look at only the environmental aspects of sustainability to the exclusion of the economic side of the issue.

It is a foregone conclusion that producers can farm in the most environmentally and socially friendly fashion but go out of business if they cannot make a profit. Thus, the environmental and social aspects of sustainability must also consider that farming operations have to be profitable on an annual basis if they are to maintain sustainability.

This then leads to the following conclusion: producers of the world’s food and fiber will be more than willing to farm in an environmentally and socially friendly manner if the technology and regulations that lead them in that direction also allow them to maintain profitability in their operations.

Based on the above statements, the following definition of sustainability is the logical one to use when talking about the concept.

Sustainable crop agriculture is an integrated system that should:

- Meet the current and future demands for human food and fiber, and animal feed;
- Enhance environmental quality by maintaining or improving the soil, air, and water resource base;
- Make the most efficient use of nonrenewable resources such as fossil fuels and mineral fertilizers;
- **Be commercially competitive to maintain economic viability of farm operations;**
- **Enhance the quality of life for producers and be viable enough to support the rural agriculture community;** and
- Incorporate practices that result in the equal maintenance or enhancement of environmental quality and profitability; i.e., a production system

that is environmentally sound must be profitable for it to be adopted and used by producers over the long term.

In May 2016, the U.S. Soybean Export Council (USSEC), the American Soybean Association (ASA), and the United Soybean Board (USB) jointly published a certified aggregate approach to sustainable soybean production on a national scale titled “U.S. Soybean Sustainability Assurance Protocol (SSAP)”. The most recent edition is [Version 3.1](#) dated May 2021. This publication describes the regulations, processes, and best management practices (BMP’s) that will ensure sustainable soybean production in the U.S. for the foreseeable future.

The SSAP is comprised of the following four directives.

**Biodiversity and High Carbon Stock Production Control Measures and Regulations.** This directive delineates the areas (biodiverse grasslands, wetlands, primary or continuously forested land, peatland, land that was primary forest, designated protected areas in the U.S.) that are not or will not be used for soybean production. It also stipulates that soybean producers are in compliance with the Federal Migratory Bird Treaty (protection of shared migratory bird resources) and the U.S. Endangered Species Act. Soybean producers who plan to alter present field setups that will impact designated wetlands must notify USDA for appropriate technical determinations and guidance for such actions.

**Production Practices, Control Measures, and Regulations.** This directive includes stipulations that: 1) soybean producers will apply [conservation tillage methods](#), [crop rotation](#), [cover crops](#), [nutrient management](#), [residue management](#), and [precision farming techniques](#) to improve [soil health](#); 2) soybean seed commerce is compliant with the Federal Seed Act; 3) producers are compliant with the Plant Protection Act; 4) producers will apply irrigation in adherence with water conservation efforts; 5) producers will comply with proper waste



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recycling/disposal regulations (click [here](#) for example); 6) producers will grow only biotechnology crops that have been deemed safe for the environment and human and animal health; 7) producers will continue to improve their energy use efficiency in order to optimize fossil fuel use; and 8) producers will adopt BMP's that will result in reduced greenhouse gas emissions.

**Public and Labor Health and Welfare Control Measures and Regulations.** This directive includes stipulations that: 1) producers are compliant with the US-EPA Worker Protection Standard for Agricultural Pesticides and with the Federal Insecticide, Fungicide, and Rodenticide Act regarding handling, storage, and application regulations for pesticides; 2) producers are compliant with the Fair Labor Standards Act regarding wages and underage workers, with the Federal Equal Employment Opportunity Law regarding discrimination, with the Occupational Health and Safety Act regarding worker health and safety, and with numerous other Federal laws enacted for workers and their rights' protections; 3) producers are compliant with the Clean Water Act, the Resource Conservation and Recovery Act, and the Safe Drinking Water Act; and 4) producers are compliant with Federal and local laws and regulations regarding ownership, lease, and use of public and private land.

**Continuous Improvement of Practices and Environmental Protection Control Measures and Regulations.** This directive places the onus on soybean producers to use established BMP's and environmental protection measures in their operations. They are to do this by adopting a variety of conservation and environmental stewardship programs that are established to provide financial and technical assistance to this end, and by using BMP's as advised by various technology transfer venues and technical guides that have been customized for local soil and environmental conditions.

Producers conduct annual self-audits of compliance, and an average of 22,000 such audits have occurred for the last 4 years. Third-party audits are conducted annually by USDA-NRCS technical staff. Over the last 5 years, over 23,000 of these audits have been

conducted annually and have revealed <2% non-compliance. Such non-compliance leads to federal fines and also means that enrolled producers are ineligible to receive benefits for most programs administered by USDA.

The above-listed groups (USSEC, ASA, USB) concurred on a national strategy for further enhancement of U.S. soybean sustainability by establishing a list of key performance indicators (KPI's) as goals for U.S. soybean farmers' sustainability by 2025. They are:

- Reduce land use impact by 10% (measured as acres/bushel of soybeans produced);
- Reduce soil erosion an additional 25% (measured as tons/bushel);
- Increase energy use efficiency by 10% (measured as BTU's/bushel); and
- Reduce total greenhouse gas emissioins by 10% (measured as pounds CO<sub>2</sub>-equivalent gasses emitted/yr).

This document elicits the below comments that are important regarding this issue.

- Nowhere in the document is the "economic sustainability/viability of the soybean producer" mentioned. The following sentence from above is repeated: **It is a foregone conclusion that producers can farm in the most environmentally and socially friendly fashion but go out of business if they cannot make a profit. Thus, the environmental and social aspects of sustainability must also consider that farming operations have to be profitable on an annual basis if they are to maintain sustainability.** So what is the answer if the above SSAP goals cannot be achieved profitably, or rather, what if strict adherence to them on an annual basis causes the US soybean producer to go out of business?
- It is laudable that soybean organizations have taken the proactive step in producing the SSAP document. The question is whether or not all of the proffered protocol goals can be met by soybean producers who have to make a profit on an annual basis.
- If all soybean producing countries in the world will



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adopt the SSAP, the US soybean producer will be on a more globally-level playing field. Without such adoption, the U.S. producer is at a serious disadvantage.

Sustainability of any agricultural enterprise is a laudable goal, especially if the predicted skyrocketing need for food and fiber is realized in the coming decades. But we must ask ourselves how to “sustain the producer” who will answer that need vs. ignoring his economic plight in the process of sustaining all other aspects of his production. After all, profitability sustains producers and their families, as well as the farming communities in which they live and operate.

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