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Pa. Soybean Farmers Support Checkoff-Funded Research Projects

HARRISBURG, Pa. (February 19, 2019) – Research projects designed to provide reliable crop production data to soybean growers and to support Pennsylvania's animal agriculture industry have been awarded checkoff grants totaling more than \$500,000 by the Pennsylvania Soybean Board.

At its February meeting, the all-farmer board, which administers the national soybean checkoff program in the Commonwealth, approved research projects focusing on crop management practices. Additionally, the board approved grant requests for research benefiting animal agriculture, the largest domestic user of soymeal and the largest sector of Pennsylvania's agricultural industry.

Funding grants were approved for the following research projects:

Pennsylvania On-Farm Network (Penn State) — The Penn State Research Experiment Farms and Pennsylvania growers participating in the On-Farm Network will test a variety of products and management practices. New projects this year will address questions on how to deal with compaction, especially after record rainfall, with a focus on no-till environment. Another new research trial will focus on good inoculation practices based on observations made from successful practices in Brazil. Last year, growers in 27 counties participated in the research.

Sentinel Plot Program (Penn State) — The sentinel plot program will be run in collaboration with Penn State Extension to provide soybean growers with statewide assessment of insects and diseases active in soybean fields. Soybean fields in 23 counties throughout the state will be scouted weekly for insect pest and disease population. Reports of the scouting results will be reported weekly via Penn State Extension-based outlets.

Soybean Variety Trials Under Pennsylvania Conditions (Penn State) — Soybean early and latematurity variety trials will be conducted at three locations in Pennsylvania. More than 100 commercial varieties and experimental cultivars will be evaluated.

Using Precision Ag Data to Refine Soil Fertility Management (Penn State) — The project will allow growers and agronomists to synthesize information contained in multiple datasets to identify differences in soil fertility levels across a field. By identifying zones within a field that

have low fertility levels, producers can vary the rate of nutrients to achieve higher yields with a more economical use of fertilizer.

Best Management Guidelines for White Mold (Penn State) – The persistent annual risk of white mold requires development of a proactive approach to understanding the importance of different risk factors, as well as farm-level economics to incorporate new changes on the farm. Research will investigate best management practices for the control of white mold.

Thrips Attraction to Volatiles of Viruliferous Soybeans (Penn State) – Soybean vein necrosis (SVN), a viral disease, causes development of shriveled, deformed seeds with reduced germination percentage and decrease in oil percentage, seed weight, protein content and fiber content. This project will investigate thrips/soybean plant interactions to determine if volatile compounds emitted by diseased plants are more attractive than those emitted by healthy plants. Information may allow the development of thrips attractants than can be used in traps.

Developing Proactive Herbicide-Weed Management for No-Till Soybeans (Penn State) — Herbicide-resistant weeds, including Palmer amaranth, waterhemp and horseweed, remain a primary pest management challenge for no-till crop producers in Pennsylvania. This project focuses on management of Roundup-resistant weeds and opportunities to reduce input costs associated with weed control programs in no-till soybean.

Impact of Soybean Inclusion on Late Gestation Sow & Litter Performance (Penn State) — Least cost diet formulations have become a normal method of primary diet formulation in the swine industry. Many producers have elected to move forward with changes to ingredients without supportive research in all stages of production. This research will investigate the effect of variable soybean inclusion rates, as compared to standard synthetic amino acids, for protein balance fed during late gestation on sow and litter performance at farrowing.

Impact of Soybean Particle Size on Poultry Performance and Digestibility (Penn State) – The poultry industry consumes more soybean meal than any other animal ag sector in Pennsylvania. Optimizing soybean particle size (PS) maximizes nutrient utilization and bird performance, but also minimizes soybean processing energy expenditures for PS and prevents bridging and flowability issues with the meal and final feed. The study will measure the impact of soybean PS on pullet chick growth in a mash-type diet, on nutrient digestibility, on broiler performance, and if pelleting the diet masks the effects of particle size.

Incidence of Influenza D Viruses in Pa. Cattle (Penn State) — Bovine respiratory disease (BRD) is the number one disease of dairy and beef cattle. Growing evidence shows that newly discovered influenza D viruses (INDs) are major players in BRD. The project will aim to isolate and characterize IDV to evaluate the prevalence and genetic diversity of these viruses to reduce losses to the cattle industry.

Ability of Roasted High Oleic Soybeans to Increase Milk Fat Yield (Penn State) — The research will evaluate whether feeding high oleic soybeans at increasing rates will increase milk fat. The objective is to demonstrate that fat intake is limiting milk fat yield in high-producing dairy cows, and high oleic soybeans are a safe and inexpensive source of dietary fat.

About the Pennsylvania Soybean Board

The <u>Pennsylvania Soybean Board</u> is a farmer-controlled Board responsible for managing Pennsylvania's share of funds received from the nationwide Soybean Checkoff program. The funding is available under an assessment program, approved by Congress in 1990, under which soybean farmers contribute 50 cents of every \$100 they receive for their beans at the first point of sale. Funds are used to develop markets, educate consumers, and research new ways to utilize and produce soybeans more efficiently.