### State:
Ohio

### Institution(s):
- Ohio State University

### Type of Report (Check all that apply)
- [✓] 1862 Research
- [✓] 1862 Extension
- [ ] 1890 Research
- [ ] 1890 Extension
- [ ] Tuskegee Research
- [ ] Tuskegee Extension

### NPL Reviewers:
- Ann Lichens Park
Report Overview Section (Required):

Acceptable

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Executive summary. (Suggested in Guidance)

Total FTEs are included for each appropriate institution of the Report

Comments:
The Executive Summary of the 2018 Annual Report is well written. It notes important achievements, such as Ohio winning the 2nd national 4-H raise your hand campaign with over 17,770 hands raised across the state. It notes key changes in leadership and describes strategic planning efforts in the College of Food, Agriculture and Environmental Sciences (CFAES). It describes significant efforts to improve the CFAES' infrastructure, such as the construction of new facilities at the Waterman Agricultural and Natural Resources Laboratory in Columbus and the science building planned for the Wooster campus. The Executive Summary describes CFAES' efforts to build strategic partnerships, such as the Center for Human-Animal Interactions, Research and Education (CHAIRE) partnering with the Columbus Zoo and Aquarium, the Ohio Wildlife Center, and the Philbro Animal Health Corp. It notes that CFAES received an impressive number (478) of extramural awards, representing a total value of more than $48 million. It also makes note of some needs identified by stakeholders that it is addressing. These include water quality and the opioid crisis. The inclusion in this summary of very recent accomplishments, such as the submission of the final report by the Water Quality Task Force in January of 2019 is noted and appreciated. The Executive Summary provides evidence of a thoughtful strategic planning process and it contains strong examples of impressive accomplishments.

Merit/Program Review Process Section (Required):

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At least one process has been checked (including other) (required)

Comments:
CFAES uses several types of merit review processes. These include internal university panels, external university panels, external non-university panels, and combinations of these types of panels. They also use expert peer review. This section notes that published materials are compiled and reviewed by panels with both technical and communication expertise. Some products undergo administrative review. Some products are reviewed by stakeholders who are knowledgeable and vested in the subject matter. Two CFAES Departments have recently undergone external reviews. Results from those reviews are being incorporated into their programs. CFAES has a Research Enhancement Competitive Grants Program, called SEEDS which uses a peer review process to allocate funding. These and other examples provided in this section provide evidence of strong merit review processes in CFAES.

Stakeholder Input Process Section (Required):

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(a) Actions taken to seek stakeholder input that encourages their participation (Required)

(b) Method used to identify groups and individuals (Required)

(c) Method used for collecting stakeholder input (Required)
(d) A statement of how collected input will be considered (Required)

CFAES' efforts to obtain stakeholder input and to incorporate stakeholder input into program planning are well organized, well thought-out and effective. They use targeted invitations and surveys to reach traditional and non-traditional stakeholders, as well as the general public. They use the media to announce public meetings and listening sessions. The major activity in 2018 was a county-based statewide needs assessment survey in which 9,600 surveys were distributed within all 88 Ohio counties. This activity got an impressive 42% response rate. They also take advantage of stakeholder lists, major events (such as the CFAES Farm Science Review), advisory committees and informal opportunities to engage with stakeholders. Input gained from stakeholders influences hiring decisions, shifts in priorities, and resource allocation including budgets, and strategic planning. Several examples of information that was learned from stakeholders are included in this section of the annual report. One noteworthy item learned in this process is that stakeholders to not always understand that CFAES is responsible for events or work being done in Ohio. Although this is an issue that is certainly not unique to CFAES and Ohio, it is something that should be worked on so that CFAES can be better recognized for all the good work that they do.

Planned Programs Section (Required):

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- Used Appropriate Logic Model Elements
- Input Dollars Expended on Each Planned Program
- Appropriate Knowledge Areas
- Appropriate Outputs for each Program
- Appropriate Outcomes for each Program

Comments:

The Planned Programs section of the 2018 Annual Report includes all of the required elements. This section includes some strong examples of outputs and outcomes. For example, the Global Food Security and Hunger Program (#5) describes research showing that two-treatment fungicide programs are 15-30% more effective than single-treatment fungicide programs in managing Fusarium head blight of wheat. They also showed that an approach that integrates fungicide application with resistant wheat cultivars is most effective in managing Fusarium head blight and vomitoxin. This could save the wheat industry millions of dollars in lost income and prevent vomitoxin from entering the food chain. The Animal Systems Program (#9) notes that three patent applications were submitted in 2018. The Animal Systems Program also includes a strong example about their development of a biodegradable oral salmonella vaccine, called NP-Sal vaccine, and the advantages of NP-Sal over previously available vaccines. The Enhancing Agriculture and the Environment Program (#14) includes some good examples of change in knowledge outcomes.

General Recommendations:

The 2018 Ohio State University Annual Report is well written and documents numerous outputs and outcomes from CFAES programs. The inclusion of recent information and accomplishments is noted and appreciated.

We hereby recommend NIFA acceptance of this Annual Report.