Chesapeake Bay Watershed Model Phase 6 Proposal

Poultry Industry Population Distribution Model Inputs

May 5, 2017

Project Proposal

To work cooperatively with the US Poultry and Egg Association and its partner broiler, egg, and turkey integrators and associations to collect and publish county-scale aggregated commercial poultry population data for the period between 2012 and 2016 for the six Bay states. The commercial poultry population data is proposed to serve as a new independent poultry data reference to more accurately distribute annual USDA National Agricultural Statistics Service state-scale poultry populations to the county-scale. The proposed poultry data reference would be completed by July 1, 2017 for partnership review and approval for potential use in the Final Phase 6 agricultural model inputs.

Project Data

The project would propose to collect and publish aggregated county-scale annualized poultry population data for the following poultry species in the Chesapeake Bay watershed.

- Broilers:
    - all Chesapeake Bay states
    - aggregated county-scale population data matched to the species representation in the Phase 6 modeling tools, e.g. all broilers
- Layers:
    - all Chesapeake Bay states
    - aggregated county-scale population data matched to the species representation in the Phase 6 modeling tools, e.g. all laying hens
- Pullets:
    - all Chesapeake Bay states
    - Aggregated county-scale population data matched to the species representation in the Phase 6 modeling tools, e.g. all pullets for laying flock replacement
- Turkeys:
    - all Chesapeake Bay states with the exception of Virginia (data previously collected)
    - aggregated county-scale population data matched to the species representation in the Phase 6 modeling tools, e.g. turkeys (all hens and toms)

The goal of the project would be to collect poultry population data at the county-scale for counties in the six Bay states:

1. First Option - Collect data for all counties in the six Bay states.
2. Second Option – Collect data for all Bay Watershed counties in the six Bay states.
3. Third Option – Collect data for some but not all poultry species in the six Bay states.

The goal of the project is to collect poultry population data for multiple years in the six Bay states:

1. First Option – Collect annual data for all years between 2012 to 2016.

2. Second Option – Collect annual data for as many years as possible between 2012 to 2016.
3. Third Option – Collect annual data for 2012 only.

Commercial turkey population data for Virginia at a county-scale was previously collected and aggregated in 2016 for the proposed historic data period and will not need to be collected as part of this project. The data collected by Virginia Tech can be provided to the Chesapeake Bay Program Office in the requested format.

Project Partners

The project partners would involve the following entities:

- US Poultry and Egg Association (USP&EA) – Lead poultry industry partner that will provide project staff to cooperate with commercial poultry industry associations to identify integrators for the collection and aggregation of commercial poultry populations at the county-scale.
- United Egg Producers (UEP) – Supporting poultry industry partner that will assist with identifying commercial egg layer integrators to collect layer populations at the county-scale.
- National Turkey Federation (NTF) – Supporting poultry industry partner that will assist the USP&EA with identifying commercial integrators to collect turkey populations at the county-scale.
- Virginia Tech (VT) – Commercial turkey population data at the county-scale was previously collected and aggregated in 2016 for use in development of turkey nutrient generation for the Phase 6 modeling inputs, and will be provided to the CBPO in the requested format for the purpose of population distribution in Virginia.
- Chesapeake Bay Program Office (CBPO) – Lead CBP partner that will cooperate with the USP&EA to develop a standard commercial poultry data template, and identify Chesapeake Bay county base data as needed (e.g. CB watershed boundaries, etc.). The CBPO will create an independent analysis of the USP&EA poultry population data with the USDA-NASS county and state-scale population data for the period of time addressed by the project.

Phase 6 Model Inputs

The project data is proposed to be used to inform the redistribution of state-scale USDA-NASS annual poultry population data to the county-scale for representation in the Phase 6 modeling tools on an annual basis. The project data collected for 2012 will be used to form a county-scale comparison to the 2012 USDA-NASS Agricultural Census report for poultry species to address historic "D" county non-reported population data. If the project data is complete, the CBPO will utilize the project data to provide a county-by-county and state-scale population comparison by species with the USDA-NASS annual and 2012 Agriculture Census population data.

Project Timeline

The proposed project will be initiated by CBP partnership approval and completed on or before July 1, 2017. The CBP partnership will review and approve of the use of the project data in July of 2017, for proposed incorporation into the final version of the Phase 6 modeling tools in August of 2017.