

# 2021 YEAR IN REVIEW

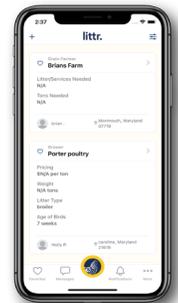


The Delmarva Land and Litter Collaborative (DLLC) is a group of diverse and respected stakeholders working at the intersection of poultry production, farming, and environmental protection. DLLC represents a new way of working together to achieve shared visions for productive agriculture and a healthy environment on Delmarva.

Our members consistently demonstrate the value of working together by sharing information, expertise, and identifying solutions in support of shared goals. Our members respectfully listen to each other, even when they don't agree. Over the past year, DLLC members have focused on facilitating beneficial poultry litter transport, understanding poultry house ammonia dynamics, finding ways to increase the implementation of best management practices on agricultural lands, and sharing our knowledge with state and local leaders.

## **POULTRY LITTER MATCHING APP**

The idea for a poultry litter connector app was conceived at a DLLC brainstorming session, as members worked to find creative ways to increase the transport of poultry litter from high phosphorus counties to regions that needed this organic fertilizer. As with most of DLLC's efforts, one of our partners took the lead. The [Delmarva Chicken Association developed the littr. app](#) with support from the National Fish and Wildlife Foundation, Campbell Foundation for the Environment, the Delmarva Land and Litter Collaborative and the Commons. Since its release in January, 2021, it has gained more than 400 users and national attention. Download the littr. app from [Google Play](#) or [Apple's App Store](#).



## **SHARED LEARNING**

To establish shared knowledge, DLLC held webinars on a variety of priority topics in 2021, including conservation drainage, poultry litter to energy, poultry house ammonia emissions, WIP implementation and water quality updates. These webinars drew on the wealth of internal knowledge while bringing in experts to fill in knowledge and data gaps. Many of these webinars are available for viewing on our website.

## **OUTREACH AND EDUCATION**

DLLC began 2021 with letters to the Virginia, Maryland and Delaware elected officials and other state leaders identifying high priority needs in support of agricultural WIP efforts. We also launched [our newly-revised website](#) that is more reflective of the diversity of audiences coming to our site for information. The new website includes a section called "Learn the Issues" that summarizes much of what we have learned from discussions with subject matter experts. DLLC began a quarterly e-newsletter to share our updates and events with a wider audience. You can subscribe by signing up through our website. As mentioned in our introduction, we held several educational webinars that drew upon data and technical expertise to identify ways to protect water quality, while also supporting agricultural production.

## **WATERSHED IMPLEMENTATION PLAN PROGRESS ON DELMARVA**

DLLC has many members who are directly involved in supporting progress toward Watershed Implementation Plans (WIP) on the Virginia, Maryland and Delaware portions of Delmarva. The state agriculture coordinators were invited and participated in a webinar we held to better understand the states' progress and challenges on Delmarva. DLLC focused on understanding which practices still need to be implemented and the current barriers to making that happen. DLLC formed a workgroup to identify the key WIP needs for agriculture on Delmarva and are working to provide recommendations to funders and partners. A recording of [this webinar is available online](#).

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## **POULTRY HOUSE AMMONIA**

This year, DLLC educated each other and engaged experts on poultry house ammonia dynamics and modeling poultry ammonia. The poultry industry has been researching and implementing ammonia reduction methods for decades because ammonia has a proven adverse effect on poultry production. However, their work has not been calculated and expressed in terms of environmental benefits. The biggest reduction of ammonia has come from genetic and nutritional adjustments, reducing the amount of manure and nitrogen being produced by each bird.



Management practices and technological changes in the houses have also improved ammonia reduction. A few examples include refined drinking water systems which reduce spillage, using litter amendments to reduce pH and absorb moisture, and adjusting the ventilation system to reduce moisture and cool the air. The nitrogen cycle is very complex, and oversimplification can be detrimental to understanding what is actually happening and to finding the best solutions.

DLLC has formed the Ammonia Dynamic Workgroup in which academics, poultry experts and environmental interests are compiling sources of information to better understand poultry house ammonia dynamics and developing public information content.

# WHAT'S NEW FOR 2022

As DLLC wrapped up its sixth year, we developed a long-term sustainability plan and began work to refresh our 2019-2024 Strategic Plan. We appreciate the many regional stakeholders who support our continued efforts to collaborate on behalf of healthy ecosystems and sustainable farming. Though DLLC began its efforts focusing on poultry litter, we have expanded our focus to efforts that promote whole system nutrient reduction for a healthier Chesapeake Bay, local communities, and sustainable agriculture across Delmarva.

## **DLLC'S FOCUS FOR 2022**

- Release our findings and recommendations for Ammonia Poultry House Dynamics
- Update our existing Strategic Plan to build on our recent accomplishments and set new objectives
- Identify and share recommendations to enhance WIP implementation on Delmarva's agricultural lands
- Seek new funding to support partner project coordination
- Continue to share science-based knowledge via our website, newsletters, and other media