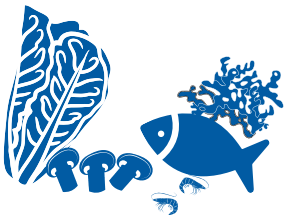
Converting Poultry Houses into Indoor Growing Facilities

UNIVERSITY OF DELAWARE
COOPERATIVE EXTENSION

RELEVANCE



There has been increased interest in converting unused poultry houses into indoor growing facilities for produce, mushrooms, fish, seafood and algae.

But there is some concern that they may harbor lingering pathogens that may compromise food safety.

RESPONSE

UD Extension produced a set of guidelines to help producers safely convert their chicken houses.

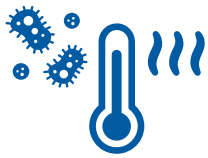
Removing old equipment.

Inspecting, repairing, treating and covering ceilings, walls, doors and vents.

Removing, treating and covering the floors (fill soil).

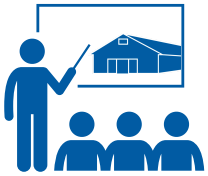
Replacing or repairing and disinfecting the ventilation system.

Cleaning and addressing the risk of using existing unvented poultry house heaters.



Disinfecting the house by heating it to more than 120 degrees Fahrenheit for four to seven days.

RESULTS



This conversion process was shared widely in print and in person.

And is currently used as the standard across Delmarva.

RELEVANCE

With many poultry houses being retired or unused, there has been an interest in converting these houses into indoor growing facilities, following national trends that see facilities like warehouses converted for growing vegetables and herbs.

With lighting costs becoming more affordable, it may be possible to use these locations for hydroponic production of fruits and vegetables. There is also the potential to use facilities to produce mushrooms (without supplemental lighting) and for tank culture of fish, seafood and algae.

However, because these facilities were used for poultry production, there is some concern the facilities may harbor pathogens that may compromise food safety and lead to food-borne illness.

RESPONSE

To address public safety concerns, UD Extension produced a set of guidelines to help producers convert their chicken houses so they will be functional and food safe. These guidelines walk producers through testing for pathogens in the Salmonella species (the species found to survive longest in the environment), remediating and repairing the chicken house and re-testing after the process is complete.

Remediation and repairs include:

- Removing old equipment.
- Removing, treating and covering the floors (fill soil)
- Inspecting, repairing, treating and covering ceilings, walls, doors and vents.
- Replacing or repairing and disinfecting the ventilation system.
- Cleaning and addressing the risk of using existing unvented poultry house heaters.
- Disinfecting the house by heating it to more than 120 degrees Fahrenheit for four to seven days.

RESULTS

This information has been shared as a factsheet and featured in articles in UD Extension's Weekly Crop Update and the Delmarva Farmer. It has also been shared via in-person presentations at Delaware Agriculture Week.

This conversion process has also been adopted by economic development consultants in the region and is used as the standard across Delmarva. To date, three houses have been successfully converted in the region.

RECOGNITION

This work was funded in part by a grant from the University of Delaware Center for Food Systems and Sustainability.

PUBLIC VALUE STATEMENT

Guidelines created to assist producers in converting their chicken houses to indoor growing facilities have been adopted as the regional standard, creating new opportunities for producers and mitigating the risk of foodborne illness.