



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

HPAI Poultry Producer Emergency Carcass Composting Guidance

During an emergency animal disease outbreak, on-site composting is the preferred method of carcass disposal in California. On-site composting is the most biosecure disposal method, as it ensures no movement of actively infected material off-site.

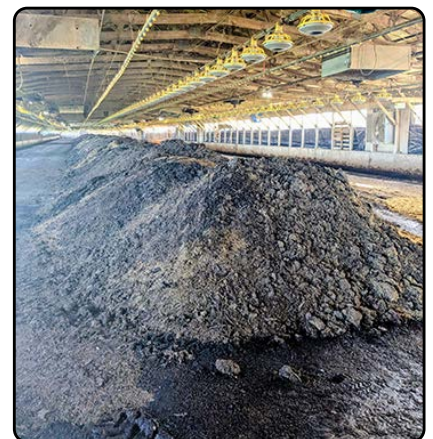
- » During an HPAI outbreak, once a farm has been confirmed positive, a Compost SME (Subject Matter Expert) will be assigned to each premises to assess the viability of composting onsite. They will follow the USDA Poultry Composting Protocol.

The SME will begin by:

- Accounting for the total amount of carcasses, bedding, litter, manure, feed, etc. that will need to be composted.
 - Verifying a viable water source on-site (agricultural well) or if there is a need for water to be brought to the premises (water trucks).
 - Assessing barn(s) dimensions to see if there is enough space to compost indoors (preferred location).
 - If the barn(s) are too small to contain the infected material the SME will look for viable space on the property that can accommodate the material to be composted.
 - The SME will assist the producer by advising of necessary setbacks mandated by environmental agencies.
- » Once the farm has been assessed by the SME, they will run compost calculations. These calculations will help us determine the dimensions of the windrows (how many linear feet will be needed), a rough estimate of the amount of carbon material that will be needed, and the amount of water that will be required to maintain proper moisture levels.
 - » It is the producer's responsibility to obtain the necessary amount and type of carbon and provide all personnel and equipment needed for the composting process.
 - The SME and the CDFA Disposal Group Supervisor are there to advise and assist if the producer is having any issues with obtaining personnel, carbon, water sources, equipment, etc. Due to indemnity considerations and resource limitations, CDFA will not be able to provide any of these resources for this effort.



- » To qualify for exemptions from testing the finished agricultural product, the compost operation must be overseen by CDFA or their Compost SME designee and all components to the windrows must include only agricultural inputs for the carbon source. In addition, the final destination for compost material must be land applied on the owner's property or a property enrolled in the Irrigated Lands Regulatory Program (ILRP).
- » Once a plan has been agreed upon, the SME will work closely with the producer and their staff or contractor to prepare the infected material for windrow construction.
- » A compost windrow is comprised of three major parts:
 - A **coarse carbon base** (First or Second Grind Orchard Trees) to allow for proper aeration (10" – 15").
 - A **core mixture**: comprised of coarse carbon, bedding, litter, manure, feed, and carcasses that have been properly mixed and combined with water for adequate moisture to activate the microbic activity of composting.
 - A **cap** to cover the core mixture (8" – 12"). This cap is typically comprised of finer carbon material (Wood shavings, Rice Hulls, etc.) to help with insulation, vector control, and odor control.
- » After the compost windrows are constructed, the SME will submit an Initial Construction Appendix G to document the process.
- » To ensure virus elimination, the temperature of the windrows will need to be monitored.
 - 10 flags will be evenly placed on each windrow and have a temperature reading taken at 18" and 36" of depth.
 - The SME will provide instruction to the producer and employees regarding the USDA protocol for gathering temperature readings.
- » The producer will need to have a minimum of two 3' – 6' in length compost thermometers.
 - The SME will instruct the producer/employees to take temperature readings.
- » To follow the USDA protocol for virus elimination, the windrow(s) must go through two 14-day periods of temperature recording: Phase I and Phase 2.
- » **Phase I:**
 - A temperature log will be provided for the 14-day period of temperature readings at 18" and 36" of depth.
 - The goal is to achieve virus elimination by achieving 131°F for 3



consecutive days in this 14-day period.

- If this is not achieved, reaching 110°F for 10 consecutive days in this 14-day period is accepted with the requirement of achieving 131°F for 3 consecutive days during Phase 2.

» **“Turning” Process:**

- This stage ensures a homogenous mixture of compost material is achieved.
- During this process some windrows may require more water to meet desired moisture levels and/or additional capping carbon to ensure proper coverage of infected organic material.



» **Phase 2:**

- A new temperature log will be provided for another 14-day period of temperature readings at 18” and 36” of depth.
- The goal is to achieve virus elimination by achieving 131°F for 3 consecutive days in this 14-day period.

- » Once all the documentation has been collected by the producer and given to the SME, the SME will give it to the Disposal Group Supervisor for review. The Supervisor will work closely with the USDA officials and procure a Compost Release Letter for the producer.
- This release letter verifies that the composted material has achieved virus elimination and can be permitted to be moved off-site to a final destination.



» **Finished Material Destination Options (CDFA Movement Permit Required):**

- Landfill
- Licensed composting facility
- Legal land application pursuant to 14 CCR 17852 (a)(24.5).
 - o Applied to orchards, vineyards, and farmland that are enrolled in the Irrigated Lands Program with the California Regional Waterboard.
 - o An address and APN (Area Plan Number) for the specific destination is required (will not be public information).

If you have any questions, clarifications, or concerns, please reach out to your regional district and be directed to the Emergency Animal Mortality Specialist.

Animal Health and Food Safety Services

Animal Health Branch

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