

Emergency Mortality Disposal Advisory

California Department of Food and Agriculture (CDFA)

Disclaimer

The guidance below is only applicable during an emergency declared by the Governor, county agricultural commissioner, or other authorized government entity. Once the emergency situation is over, disposal of mortalities on-site or through landfill without proper CDFA permit will be considered by California Central Valley Regional Water Quality Control Board (RB-5) to be a violation of the Dairy General Order, and a violation of California Food and Agricultural Code (FAC) 19348.

This is our best understanding of the current situation. We will provide updates if the situation changes and more information becomes available.

Background

The regional heat wave expected over the next few days has resulted in higher than normal animal mortality rates in the Central Valley areas. This advisory was created to give necessary guidance to impacted producers regarding alternative carcass disposal methods.

Disposal Options

Currently, there are four alternative carcass disposal methods that include: 1. Direct transport to alternative rendering facilities; 2. Direct transport to permitted landfills; 3. Temporary on-farm storage for later transport to rendering or permitted landfills; and, 4. On-farm composting for later transport to landfill or on-farm land application for non-agricultural purposes.

The four options listed below are provided as general guidance describing all potentially viable alternative disposal methods during the heat event. Please be aware that some counties may have some specific guidance/requirements on how to dispose of stockpiled animal carcasses during such events. It is the producer's responsibility to check with their local enforcement agencies (LEA) and follow their guidance and requirements.

Option #1. Direct transport to alternative rendering facility.

The preferred carcass disposal option is direct transport to an alternative rendering facility with available capacity to process the carcasses. Rendering is recycling and it provides the best beneficial use of the carcass materials. However, the condition of the carcasses is critical, as rendering plants have requirements regarding the acceptable levels of carcass decomposition. If this option is pursued, coordination is critical among CDFA's Meat, Poultry and Egg Safety (MPES) Branch, the alternative CDFA licensed rendering facility, licensed collection centers, and licensed dead animal haulers. Mr. Michael Koewler, Chairman of CDFA's Rendering Industry Advisory Board (RIAB) is the lead for coordination among rendering facilities. Mr. Koewler is also President of Sacramento Rendering Company and can be reached at 916-363-4821. Please contact Mr. Koewler for the coordination of transportation among the alternative rendering facilities, dead animal haulers, and collection centers.

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- **CDFA Licensed Renderers and Collection Centers:** A link to the map showing the location and contact phone number for licensed renderers and collection centers can be found [here](#).
- **CDFA Licensed Dead Animal Haulers:** A list of 2020 CDFA licensed dead animal haulers with their contact phone number can be found [here](#).
- **CDFA MPES Branch Contacts:**
Paula Batarseh, 916-900-5059, Paula.Batarseh@cdfa.ca.gov
Han Lai, 916-204-4438, han.lai@cdfa.ca.gov

Option #2. Direct transport to permitted landfill

If Option 1 is not available, producers may be able to locate a landfill that will accept animal carcasses. The first step in evaluating this option is to contact local landfills regarding their acceptance of animal carcasses. The second step is to consult with your LEA and the Regional Water Quality Control Board (RWQCB) before transporting carcasses to a landfill. The RWQCB recommends that animal carcasses should only be disposed of in landfills with permitted leachate management systems to prevent potential water quality contamination. There are many more landfills in the Central Valley that lack leachate management systems than those that do. Therefore, it is critical to work closely with the LEA and RWQCB to determine which landfills will be allowed to accept carcasses during heat events. Once a landfill has been identified, remember landfill operators should also be provided with a copy of the CDFA Carcass Disposal Quarantine Notice.

Local Landfill Map: A comprehensive interactive map listing local landfills is [available on-line](#) from CalRecycle.

LEA Directory. A directory link with contact information for the LEAs can be found at: <https://www2.calrecycle.ca.gov/SolidWaste/LEA/Directory/>

Central Valley RWQCB Contact: Doug Patteson, (559) 445-5577

Option #3. Temporary storage on-farm for later transport to a rendering facility or permitted landfill.

If Option 1 and 2 are not available, carcasses may be temporarily stored on-site at the farm. There are two temporary storage options.

- 3.1 On-Site Cold Storage. Holding carcasses in a temperature-controlled storage unit is preferred as it retards decompositions and may hold the carcass in a condition that will allow rendering at a later date.
- 3.2 Temporary Piling. Carcasses can be piled on or above the ground surface and covered with soil. In either case, the pile needs to be on an impervious layer to protect groundwater from leachate infiltration, e.g. a waterproof liner is required to be placed underneath the pile. During an extended heat event, storage in ambient temperatures will result in accelerated decomposition where the final disposition will be transport to a permitted landfill. Producers should contact the landfill prior to storing carcasses onsite and before transporting the material to ensure the facility is permitted and has the capacity to accept carcasses. Producers should also consult with the county LEA and RWQCB before pursuing with the temporary storage option for ultimate landfill disposal.

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Note: Always consider control measures for insects, other fomites, and vectors during temporary carcass storage. Stored material must be removed from the farm within **one month** following the creation of the temporary pile. If any storage is done below grade (buried), prior notification to the RWQCB is required to avoid enforcement action. Be sure to keep and maintain records to document that the material was taken to a landfill within one month. Also maintain final landfill disposal records for inspection.

Option #4. On-farm Composting

As a last resort, if the animals died on the owner's property they may be composted on-farm. If done correctly, composting can: mitigate the immediate issue of decomposing animal carcasses by the roadside, control common human and animal pathogens, and create a more manageable material that may be more acceptable for landfilling. Compost must always be performed in a controlled manner by trained and experienced personnel. Proper site security measures such as fencing should be installed to protect the compost piles from predators, vermin, or other unwanted animals. After the composting process is complete and no later than **six (6) months** from starting the composting process, the composted materials will be required to be disposed of through:

4.1 **Landfill.** Composted materials can be disposed of at permitted landfills. The producers should confirm that there is a landfill available that will accept compost material before beginning the composting process. Producers should consult with the landfill operator, LEA, and RWQCB before starting the composting process and/or sending the composted material to the landfill. The date, number and identity of cows composted and subsequently transported to landfill should be documented to address any future regulatory inquiries.

4.2 **Land Application on Owner's Property for Non-Agricultural Purpose.** Land application is an option but only with the approval of the RWQRB and is for non-agricultural use only. Producers should consult with the RWQCB before starting the composting process and inquire about requirements for land application. It is likely that land application will require a management plan with monitoring and testing that shows the composted material will not be a threat to water quality. The producers should plan for the possibility that the only disposal option for the composted material is landfill. Be aware that the maximum allowed time for composting on-farm is **six (6) months**. In addition, outside material cannot be brought on site to be composted, and the compost materials cannot be transported off-site (other than to a landfill as presented under option 4.1) or sold and/or land applied at other locations. Bones should be removed and properly disposed of prior to land applying the compost materials.

Composting resources: Several guides for composting cattle mortalities are available on-line including USDA and Extension Bulletins from [Michigan State](#) and [New Mexico State](#). Research by the University of California suggests dairy manure (either dry-lot scraping or screened manure solids) having a moisture content ranging from 25% to 70% and is an effective composting feedstock. An impervious layer such as a concrete pad or a waterproof liner should be used to protect groundwater from infiltration. Adult carcasses should be placed on a 3-foot bed of dairy manure and covered with 3 feet of the same material. The site of the temporary piles should be protected from inundation, washout, runoff, ponding, and scavenging wild animals. The temporary pile should be at least 50 feet from any domestic well.

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Recordkeeping Requirements

Producers are required to record the final disposition of each carcass not sent to rendering. This will help protect them from regulatory confusion and potential fines. Records must be maintained for at least three years.

Please reach out to CDFA MPES Sacramento Headquarter if you have any general questions or need additional assistance.

California Department of Food and Agriculture

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