DISPOSING OF EXCESS CRANBERRIES

excerpted from CCCGA Grower Advisory: Cranberry Disposal Guidelines

Despite best efforts to eliminate crop prior to harvest in 2001, some growers may find that they have excess fruit beyond their USDA allotment. Disposal of this fruit must meet all State environmental regulations. Listed below are lists of prohibited practices and some alternatives for legally disposing of excess crop (above allotment).

ILLEGAL DISPOSAL PRACTICES

The following disposal options are considered illegal in the State of Massachusetts and would be in violation of the Solid Waste Disposal laws and/or the wetlands protection act:

- Dumping into piles on farm (except what is allowable under land spreading guideline, listed below)
- Filling of wetlands or depositing within 100 feet of natural wetlands
- Burying fruit including in abandoned gravel/sand pits.
- Discharging of fruit “down stream” with harvest flood.

LEGAL DISPOSAL OPTIONS

Commercial Composting

Generally these operations will charge $20-40 per ton tipping fee. CCCGA has a list of commercial composters in the area.

On-Farm Composting

On-Farm composting would allow a grower to combine cranberries with other waste products on site. However, composting on this scale requires on-going maintenance and management. An improperly managed composting site can become nothing more than an illegal dump and, as such, would be subject to enforcement by DEP. A bulking material (leaves, manure, hay, used animal bedding, etc.) needs to be available to mix the berries, a minimum would be an equal amount to the berries. A BMP Guide to composting is available at the Cranberry Station. Contact Hilary Sandler (ext 21) with questions.

If a grower has the bulking material on his/her own farm, then they can compost following the Department of Food and Agriculture (DFA) guidelines without registering with the DFA. If a grower needs to bring in bulking material from off the farm or will be receiving berries from another farm, they need to register with the DFA as part of an agreement with DEP. In order to register, an application must be submitted to DFA. The application can be found in the Department’s “Guide to Agricultural Composting”. To receive a guide, contact Craig Richov, DFA, at 508-792-9911 x 14 or the CCCGA at 508-295-4895. The publication explains the details about what a grower would need to do. The application asks for information
about acreage, land uses, vegetative buffers, and more. Growers may also join together to register as one composting unit.

Commercial Disposal
Commercial disposal is available through several entities. The SEMASS “trash to energy” plant in Rochester, Bourne Landfill or Fall River Landfill are options for disposal. All require special handling of the product and growers will be charged an estimated $100 per ton. If any grower is interested in this option, they should contact the facility directly about disposal requirements.

Land Spreading
These criteria have been developed to assist Massachusetts cranberry growers in the utilization/land application of cranberries to agricultural fields. Through land application, cranberries are considered an organic soil conditioner, containing essential plant nutrients and organic matter that improve soil tilth and increase the organic matter content of soil. The residual product also contains vines and leaves remaining from harvesting. For information on locating farmers willing to receive fruit for land spreading, contact Len Reno, USDA, Natural Resource Conservation Service, (508) 295-7962.

General Criteria (Setbacks/Application Rates)
If these criteria are followed, the residual fruit will be land applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices (NRCS - Waste Utilization Standard). The criteria are:

- 250 feet minimum from residences
- 200 feet minimum from private water supply wells
- 500 feet minimum from municipal wells
- 200 feet minimum from surface water
- 6% slope or less for fields used
- 1,000-1,200 barrels/acre (about 1” of fruit) is maximum application rate on tilled cropland with incorporation
- 200-300 barrels/acre is maximum application rate for pasture/hayland and fields with permanent vegetative cover (including forest land)
- Keep records of application rates and locations
- Follow all applicable federal, state and local laws, rules and regulations governing waste management, health and safety and wetlands protection

Nutrient Content of Cranberries and Overall Field Nutrient Management
Cranberries contain the following plant nutrients per 1000 to 1200 bbls/acre (approx. 50-60 wet tons/acre): (Source: University of Wisconsin Extension)

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>lbs in 1000-1200 bbl/acre application</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>75-90</td>
</tr>
<tr>
<td>P</td>
<td>7-9</td>
</tr>
<tr>
<td>K</td>
<td>100-120</td>
</tr>
</tbody>
</table>

Approximately 50% of the total N shown above will likely be available to the crops the first year after application. Landowners need to consider the nutrients applied from the cranberry application when figuring total crop needs. The effect of land application of cranberries on soil pH and subsequent soil pH management is a consideration. The soil response to an application of 1000-1200 barrels of fruit per acre is minimal if applied once; further applications (on a yearly
basis) would necessitate soil testing to determine if liming is needed. Sandy loams and loamy sands as well as other loam type soils will handle the waste better than others. These soils will also benefit from the addition of nutrients and organic matter.

Stockpiling Before Application
Stockpile fruit for no more than 30 days prior to land application or other disposal means depending on crop needs (harvest dates) and weather. Stockpile to avoid compression of the fruit and in a manner to prevent off site movement of fruit or juice. Fruit must be spread before ground freezes on agricultural fields. Level fields (1% to 3% slope) should be used, if not incorporating in fall, to prevent runoff.

Incorporation
Cranberries will decompose faster if they are incorporated into the soil shortly after application. However, some cropping systems involve minimal or no tillage (no-till corn). Corn stubble residue should be sufficient to keep the berries from moving offsite. Light disking or chisel plowing is preferred to maintain some soil cover during the winter months to prevent soil erosion. Fall moldboard plowing would not be preferred.

Leaving Fruit on the Vine
The University of Massachusetts Cranberry Experiment Station does not recommend leaving fruit on the vine for bogs that will remain in active cultivation beyond 2001. The berries will serve as a source of insect infestation and disease inoculum for the next growing season. Seeds from the fruit left behind will germinate over several growing seasons and are likely to spread mongrel vines. These vines can be vigorous in vegetative growth, overtaking the cultivar that is planted for production in that particular bog. If the bog is slated to be renovated, then leaving the fruit on the bog will not impede that process.

The above information is provided by the Cape Cod Cranberry Growers’ Association and distributed by the Cranberry Experiment Station for the benefit of all cranberry growers in Massachusetts. The information represents our interpretation of the federal and state requirements and by no means is intended to act as a substitute for reading and following the specific regulatory requirements.

Cost of Production Insurance Workshop
Rescheduled New Date: October 23, 2001
at 6:30 p.m. in the Station Library

Cost of Production (COP) Insurance is a program sponsored by USDA that allows producers to insure a covered level of actual documented costs of production. At this time, USDA has hired the agricultural consulting firm AgriLogic, Inc. to conduct a feasibility study regarding offering this insurance to cranberry growers.

Bristol, Barnstable and Plymouth Counties in Massachusetts will be proposed as pilot areas for cranberries. This workshop provides an opportunity to learn about this program and more importantly, it will give you a chance to provide input on how such a program should work for cranberry growers.

On the basis of the information gained by AgriLogic at this meeting and meetings in other cranberry growing regions, they will formulate a proposal to USDA regarding specifications for a COP Insurance program for cranberries.

Cranberry growers and their insurers are encouraged to attend this session to provide input and gain knowledge about this program. Please RSVP to Deb Cannon at the Cranberry Station at (508) 295-2212 ext. 10 or by e-mail to dcannon@umext.umass.edu if you plan to attend.
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