Manure Use

Untreated or raw manure, as defined in the Food Safety Modernization Act Produce Safety Rule (FSMA PSR) 21CFR112.51(b) can be a significant threat to food safety on your farm. Proper application and storage of raw manure on your farm is essential to ensure a reduced risk of contamination. Improper application can result in costly recalls or worse.

This guidance document and episode will walk you through the recommended use and storage of raw manure to ensure GAP and FSMA PSR compliance. It will also provide a sample written policy for manure application. In addition, supplemental recordkeeping logs are provided as part of this episode's documentation. This factsheet and episode will not deal with treated manure.

Raw manure is not an issue for every farm working toward meeting food safety requirements. For those that use it, there are particular recommendations for use, storage and application that must be met in order to be in compliance.

In general, raw manure should be stored at least 100 yards from the production area. Care should be taken to ensure that no runoff from the storage facility enters the production area. If a grower chooses to periodically check the manure storage area to ensure this, it should be written as part of the policy (see below for an example) and the periodic monitoring should be recorded on a manure storage log sheet.

The sample policy presented here includes both the storage and application of raw manure. These passages must be customized for your specific farm circumstances. In addition, the policy states that raw manure is only applied according to the rate of crop removal for nutrients. Some auditing schemes require this for all fertilizer applications while others do not. As always, consult the specific criteria you are auditing against as to specific requirements.   Whatever you write, make certain that you are following it.

Manure Policy

All manure on the farm is stored at least 100 yards from the production area. On farm manure storage is monitored on a regular basis to ensure that no runoff poses a potential food safety risk. Monitoring is recorded on the manure storage log sheet (Omit this passage if there is no on farm storage of manure)

Manure Policy (continued)

Manure is applied and incorporated at least 2 weeks prior to planting and at least 120 days before harvest. (Manure is applied according to crop removal rates if this is specified by the GAP auditing scheme).

The standard operating procedure for product contaminated by manure, runoff, leachate or other contaminating factors is to dispose of the product immediately.

Either an annual calibration of the application equipment to ensure an effective rate of nutrient application or a manure nutrient test with applications in each field in tons per acre can serve to validate your rate of application based on crop removal. In either case, include any documentation or record the date of calibration in the Food Safety Manual.

As per 112.56(a)(1)(i), any application of manure must be made to minimize the contact with the harvestable portion of the crop. In the future, an application interval will be required for FSMA PSR Compliance. Currently there are several GAP audit schemes that require 120 or 90 day application intervals to harvest, but FSMA PSR currently does not.

If manure is applied by another farm or company, make sure the other company furnishes you with the necessary information. Include this information in your Food Safety Manual.

You will find sample Manure Storage Monitoring Log Sheets, and Manure Application Logs in the show notes. As always, you will want to alter these and the associated policies for the size and scope of your operation.

As has been said before, the auditor is looking for evidence of a system written in the GAP Manual to minimize incidence of foodborne illness, visual evidence that it is taking place and documentation that it has been taking place in the past. Writing the Manure Policy is the first step. Implementing the practices on your farm is the next step. Documenting that you check the manure storage and all applications of manure to fields is the final step. If it wasn't recorded, it never happened.

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