



Livestock System Verification Checklist

A boxed risk level indicates the level required for environmental assurance verification.

Bold print indicates a violation of state or federal regulation.

Bold Italic print indicates conformance with Right-to-Farm guidelines. (3-31-09)

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Whole Farm Nutrient Balance				
1.02) Is there adequate land base for all nutrients produced on the farm?	Yes, or manure is sold off site.	No, but fields test low in phosphorus and manure can be balanced on nitrogen.	No	YES NO N/A
Farm Site Review (for small and medium-sized livestock farms)				
2.01) Does rain, snow or surface water come into contact with manure, compost, feed/silage, livestock lots or travel lanes resulting in contaminated runoff?	If no, skip to relevant sections for the farm. Or, <i>yes but it is collected to treated.</i>	Some areas are exposed to rain/ snow or surface water.	Yes, Numerous areas are exposed to rain/snow or surface water, and water is not collected or treated.	YES NO N/A
2.02) If surface drains are present around the farmstead, what is going to them and where do they end up?	Surface drains do not capture polluted runoff. Or, <i>there are surface drains, but runoff is collected or treated.</i>		Surface drains collect contaminated runoff and discharge to surface water or run to low areas and pond.⁴	YES NO N/A
Milking center wastewater				
3.02) How is plate cooler water handled?	100% of plate cooler water is reused for livestock watering or other livestock-related use. Or permitted for discharge.	Less than 10,000 gal/day are discharged onto ground surface. Discharged water does not intercept surface water.	More than 10,000 gal/day are discharged onto ground surface or intercept surface water without a permit.⁴	YES NO N/A
3.03) What are your parlor cleanup practices?	Initial pipeline rinse captured and added to manure. Waste milk never poured down drain. Manure and excess feed removed from parlor before wash-down.	Some milk poured down drain. Some manure and excess feed removed before wash-down.	All waste milk poured down drain. Manure and excess feed frequently washed down drain. Waste milk is discharged.⁴	YES NO N/A
3.04) Is all wastewater collected and stored?	Wastewater is stored, used or hauled daily.	Wastewater passes through a properly designed filtration system.	No. Wastewater is directly discharged to a lake, drainage ditch, stream or field.⁴	YES NO N/A
3.05) Is rejected milk collected and stored?	Yes, rejected milk is stored, hauled out or fed.		No, milk is discharged⁴ , put into septic system or put into treatment strip.	YES NO N/A

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Milking system septic systems. If this method is not used, skip to the next section.				
3.06) Is all milkhouse water treated by the septic system?	Yes.		Some water is not treated or is discharged to tile, inlet or drainage ditch.⁴	YES NO N/A
3.07) Is the septic system designed to handle the volume of wastewater?	Yes.		No	YES NO N/A
Application of wastewater to designed infiltration system. If this method is not used, skip to next section.				
3.10) Is the system designed to handle the capacity of wastewater generated?	Yes. Infiltration area effectively treats the quantity of wastewater generated. <i>Treatment area is managed to prevent pollution to waters of the state.</i>	Infiltration area shows minor erosion, wastewater ponding or burned vegetation.	No. Infiltration area has excessive erosion, wastewater ponding or burned vegetation.	YES NO N/A
3.11) How is the designed infiltration system maintained?	<i>Vegetation maintained and harvested at least once per year.</i> Accumulated solids removed, if needed.	Occasional maintenance	No maintenance.	YES NO N/A
Direct discharge to surface water or groundwater.				
3.12) Is wastewater directly discharged to a lake, drainage ditch or stream?	No. <i>Milk parlor and milkhouse wastewater is managed in a manner to prevent discharge into surface water.</i>		Yes.⁴	YES NO N/A
Manure storage (Includes all storage systems used for manure, wastewater or runoff containment)				
4.01) What is the storage capacity of manure systems?	There is 6 months or greater manure storage.	There is less than 6 months storage; adequate land base is available for winter and summer applications	There is minimal or no manure storage on site. Adequate land base is not available.	YES NO N/A
Comments:				

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Liquid manure storage systems				
4.03) What design standards are utilized for storage structures?	Construction design for manure storage and treatment facilities meets specs. And guidelines found in MI NRCS-FOTG, Concrete Manure Storages Handbook (MWPS-36), Circular Concrete Manure Tanks pub. TR-9 (Midwest Plan Service, 1998). For steel: Manual of Steel Constr., Amer. Institute of Steel Construction. For concrete: Bldg Code Req. for Reinforced Concrete, ACI 318, Amer. Concrete Institute. No evidence of overflow. For earthen storage, the permeability of the earthen liner is known.	Storage was designed and built by professionals, but the as-built design standards are unknown.	Storage was designed and built without engineering standards or is a natural depression area. ⁴	YES NO N/A
4.04) Are structures properly maintained?	Structure is properly maintained and in good condition. No damage to the liner or breaches evident. No visible signs of issues with push-off ramps, load-out areas, pumps, piping, etc.	Structure appears to be in good condition.	Lining material integrity broken. Evidence of overflow. Coarse-textured soils, no clay liner. Evidence of extensive cracking, leaning, etc. Structure needs repair.	YES NO N/A
4.05) Are areas adjacent to storage structures properly maintained?	Banks are mowed and inspected regularly for potential problems. No brush, trees or animal burrows present.	Banks are not mowed regularly. Woody plant material present.	Lack of maintenance around storage site. Numerous areas in need of repair. Burrows present.	YES NO N/A
4.06) Is clean water (i.e., roof and surface runoff) diverted away from the manure storage facility?	Yes.	No, but storage can accommodate storm events and freeboard is maintained.	No. Potential exists for overflow of manure storage.	YES NO N/A
Comments:				

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
<p>4.07) How is freeboard maintained and overflow prevented in storage structures?</p>	<p>Minimum freeboard is known and observed. A minimum freeboard of 12 inches (6 inches for fabricated structures) plus the additional storage volume necessary to contain the precipitation and runoff from a 25-year, 24-hour storm event. Freeboard markers are in place or available. No evidence that manure has been over the calculated safe freeboard level.</p>	<p>No evidence of manure overflowing storage.</p> <p>Safe freeboard level is known but not visibly marked.</p> <p>Freeboard not always maintained.</p>	<p>Evidence that manure overflowed the storage structure. Freeboard level is unknown and unmarked.</p>	<p>YES NO N/A</p>
Solid, bedded manure systems (Includes stacked manure and manure composting in field)				
<p>5.01) How do you temporarily stack manure in relation to surface water?</p>	<p>Manure is stacked down-slope from surface water or more than 300 feet up-slope. All manure runoff is collected and periodically land-applied. Storage is watertight and meets or exceeds recommended capacity.</p>	<p>Manure is stacked at least 50 feet away from surface water. Runoff water is diverted to vegetated filter strips, or other means are used to prevent runoff into surface water.</p>	<p>Manure is stacked within 50 feet of surface water. No means of runoff or leachate control. Slope is toward surface water.</p>	<p>YES NO N/A</p>
<p>5.02) For temporarily stacked manure or manure compost piles, how is the site managed to protect surface water, groundwater and/or neighboring properties?</p>	<p>Provisions are made to control and/or treat runoff from stacked manure/compost, and site is managed to protect surface water, groundwater and/or neighboring properties. Manure is stacked on impermeable surfaces (concrete, etc.) or compacted soils, and storage area contains a well-maintained barrier such as a wooden or concrete wall or earthen berm to trap runoff. Construction and management practices for composting are implemented using NRCS Composting Facility No. 317 standards.</p>	<p>Manure/compost is stacked on somewhat permeable, medium-textured soils. Partial or no barrier is used to trap runoff. However, runoff is diverted and passes through a vegetated filter strip or other treatment process.</p>	<p>Manure/compost is stacked on coarse-textured soils or above tile drains. No means of runoff or leachate control. Slope is toward surface water. Signs of runoff past perimeter of vegetated area or storage site, with runoff reaching surface water. Surface water and/ or groundwater quality are being adversely affected.⁴</p>	<p>YES NO N/A</p>

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Solid, bedded manure systems (Includes stacked manure and manure composting in field)				
5.03) How long is manure temporarily stacked at the farm or field site?	Less than 90 days. Stacked in different locations each time.	More than 90 days but less than 365. Stacked in different locations each time.	365 days or more. Stacked in same location each time.	YES NO N/A
5.04) Where do you temporarily stack manure at the farmstead?	Manure is stacked in different locations where <i>runoff control protects neighboring land areas and prevents direct discharge to surface waters or groundwater.</i>		Manure is stacked in the same location every year. Evidence that manure-contaminated runoff flows to surface water or to adjacent property.⁴	YES NO N/A
5.05) Is clean water or runoff diverted away from the manure/ compost storage site?	Clean runoff is diverted.	Clean water is not diverted but is captured, treated or stored.	Runoff is not diverted and is contaminated. Runoff water is not captured, treated or stored.	YES NO N/A
Outside livestock lot management				
6.01) How far is the livestock lot from surface water?	More than 300 feet from surface water or vegetative buffers are in place. And, <i>runoff control protects neighboring land areas and prevents direct discharge to surface waters or groundwater.</i>	75 to 300 feet from surface water or vegetative buffers are in place. And, <i>runoff control protects neighboring land areas and prevents direct discharge to surface waters or groundwater.</i>	Evidence that manure-contaminated runoff flows from lot to surface water or to adjacent property.⁴	YES NO N/A
6.02) What efforts are made to divert roof water and upslope watershed drainage from becoming contaminated with manure?	<i>Provisions are made to collect, store, utilize and/or treat manure accumulations and contaminated runoff from outside open lots used for raising livestock.</i> Clean runoff is diverted away from the livestock lot.	Most roof water and upslope watershed drainage is diverted around livestock lot. Water that contacts manure is treated or contained and applied to cropland.	No clean water system in place. Most roof water and upslope watershed drainage runs through lot.	YES NO N/A
Comments:				

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Outside livestock lot management				
6.03) How is livestock lot runoff managed to protect surface water, groundwater and/or neighboring properties?	<i>All lot runoff is directed to a properly designed and maintained runoff storage basin, or runoff is directed to a designed settling basin and vegetated infiltration area where vegetation is annually harvested. No evidence of runoff to surface water, groundwater and/or neighboring properties, or ponding in low areas.</i>	<i>No evidence of runoff flow to surface water</i> or ponding in low areas. Dense vegetation or cropland that is annually harvested exists between lot and surface water.	Evidence of runoff flow to surface water or intermittent waterway. ⁴	YES NO N/A
6.04) How often is manure scraped and removed from livestock lots?	<i>Manure is scraped and removed periodically from livestock lot</i> or other heavy use areas.		Manure is seldom scraped and removed from lot and feeding and watering areas.	YES NO N/A
6.05) What type of floor or base does the livestock lot have?	Properly maintained concrete or compacted asphalt.	Continuous-use, compacted dirt or compacted gravel. Minimal plant material growing.	Poorly compacted dirt or gravel layer as indicated by plant growth.	YES NO N/A
Pasture management				
7.01) Are there current soil tests on the pastures?	<i>All fields are sampled and tested on a regular basis</i> , at least every 1 to 4 years, depending on crops being grown and the cropping system.	Most fields are sampled and tested every 1 to 4 years. Producer plans to bring all field soil tests up-to-date within the next 3 years.	Fields have not been tested within the past 4 years.	YES NO N/A
Comments:				

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk – 1	Meets Criteria
Pasture management				
7.02) What is the condition of pasture vegetation?	Pasture is well-managed with all areas vegetated. Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface and groundwater. Or no contaminated runoff is noted.	Pasture is well-managed and vegetated except in small feeding and watering areas, which are scraped. Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface and groundwater. Or, no contaminated runoff is noted.	Non-certified and unsupervised applicators use RUP.	YES NO N/A
7.03) How is the pasture managed to protect surface water?	Livestock are excluded from actual contact with streams or watercourses except for controlled crossings and accesses. Or, pasture management measures are in place to protect neighboring land areas and prevent direct discharges to surface water or groundwater.		Runoff flow to surface water is evident. Livestock have free access to streams or watercourses, causing erosion.⁴	YES NO N/A
7.04) What is being done to reduce manure concentration around watering tanks/feeders in pasture areas.	Water tank/feeding areas are rotated to different areas of pasture. Or, watering/feeding areas are permanent, but manure is removed frequently to prevent concentration of nutrients. Vegetation present is sufficient to slow movement of water, control soil erosion and utilize manure nutrients.	Watering/feeding areas are permanent, but manure is removed periodically to prevent concentration of nutrients. Runoff from pasture feeding and watering areas travels through a vegetated filter area to protect surface water and groundwater.	Watering/feeding areas are permanent with infrequent or no manure removal. There is evidence of runoff to surface water⁴ or ponding in low areas.	YES NO N/A
Silage Storage				
8.01) Does untreated silage leachate or polluted runoff run to a low area and pond?	No		Yes	YES NO N/A

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
8.03) Are silage Leachate and polluted runoff collected and/or treated?	Provisions are made to control and/or treat leachate to protect groundwater and surface water from a direct discharge. (Includes capturing of leachate from drains.) Designed system or management controls are in place.			YES NO N/A
8.04) What Moisture content is silage typically harvested and stored at?	Generally below 67 percent.	Between 67 and 80 percent	Over 80 percent	YES NO N/A
8.05) Does an emergency plan exist for times when leachate production exceeds current management controls?	An up-to-date written plan is available and understood by all farm employees.	Emergency action plan is incomplete or out-of-date.	No emergency action plan that covers excess leachate.	YES NO N/A
Bunker silos				
8.06) What type of floor does the silage storage have?	Concrete, asphalt or lined surface. No cracks or cracks repaired	Earthen floor with fine-textured soils.	Earthen floor has permeable soils. Concrete, asphalt or lined surface contains many cracks.	YES NO N/A
Silage bag				
8.15) is there a mechanism for collecting or treating or utilizing accumulated leachate?	Yes.		No. Leachate runs from bags to surface water. ⁴	YES NO N/A
Manure Spreading Plan				
10.01) How often are fields tested for nutrient levels?	All fields are sampled and teted on a regular basis, at least every 1 to 4 years, depending on crops being grown and the cropping system.	Most fields are sampled and tested every 1 to 4 years. Producer plans to bring all field soil tests up-to-date.	Fields have not been tested within the past 4 years.	YES NO N/A
10.02) Do soil sampling procedures adequately represent field conditions?	One composite sample is taken from uniform field areas of 15 to 20 acres or from uniform management areas on grid or zone sampling procedures.	One composite sample is taken from uniform field areas of 20 to 40 acres.	One composite sample is taken from areas of greater than 40 acres.	YES NO N/A

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
10.03) How is the nutrient content of manure determined?	<i>Laboratory analysis for percent dry matter (solids), ammonium, and total N, P and K.</i>	Book values or standard nutrient content values used.	Manure nutrient content is unknown.	YES NO N/A
10.04) How are desired application rates achieved?	Manure analysis is known, and field application equipment is calibrated annually. Application rate is known.	Application rate is known.	Application rate is not known.	YES NO N/A
10.05) How is the soil's ability to hold water and nutrients considered when calibrating for manure application?	Rates are at or below a level that manure does not run off or escape via tile drains. Inspected after application. <i>An application that results in manure flow in a field tile is unacceptable.</i>		Manure application rates may be above the soil's ability to hold the water and nutrients.	YES NO N/A
10.06) How are fertilizer application rates determined?	<i>Consistent with Michigan State University recommendations.</i> And manure nutrients are credited.	Fertilizer rates are based on soil testing lab recommendations but not consistent with MSU recommendations.	Fertilizer is not based on soil testing.	YES NO N/A
10.07) What type of manure management records are maintained?	Complete application <i>records of manure analysis, soil test results and rates of manure application for individual fields are maintained.</i>	Some manure application records are kept. Plan to maintain complete manure application records.	Minimal or no records maintained.	YES NO N/A
10.08) How are manure nitrogen application rates managed?	<i>Manure nitrogen rates do not exceed requirements of the crop</i> and are credited toward fertilizer needs. Pre-sidedress nitrate test (PSNT) may be part of the program.	Manure nitrogen credits are considered but not to their full extent.	Manure nitrogen credits are not accounted for.	YES NO N/A

Comments:

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
<p>10.09) How are manure phosphorus application rates managed.</p>	<p><i>High testing fields (>150 ppm Bray P1) do not receive manure, and fields between 75 and 150 ppm P receive no more than 4 years, crop P removal per year, if one-year application, is impractical.</i></p>	<p>High testing fields (>150 ppm Bray P1) removed from spreading plan, but crop removal rates are not followed</p>	<p>Manure application rates are not based on soil tests and/or crop removal rates.</p>	<p>YES NO N/A</p>
<p>10.10) Are odor reduction practices utilized when manure is land-applied?</p>	<p><i>Yes, manure is generally injected or incorporated immediately (within 48 hours) when feasible.</i></p>	<p>Manure is generally incorporated within 7 days or not at all on no-till or pasture/hay.</p>	<p>All manures are surface-applied and may not be incorporated until field is covered or until spring tillage.</p>	<p>YES NO N/A</p>
Conservation Practices for Fields used for Manure Application				
<p>11.01) Are manure applications managed to avoid ponding, soil erosion and/or runoff?</p>	<p><i>Liquid manure applications are being managed in a manner to optimize nutrient utilization and do not result in ponding, soil erosion losses, or manure runoff to adjacent property, drainage ditches or surface water.</i></p>	<p>Some consideration is given to ponding, soil erosion and/or runoff.</p>	<p>Ponding, soil erosion and/or runoff are not considered.</p>	<p>YES NO N/A</p>
<p>11.02) Have environmentally sensitive areas been identified (land near surface water, highly erodible land, soils with high leaching or runoff potentials, wells and surface inlets) that require additional management when applying nutrients (manure and fertilizers)?</p>	<p>Environmentally sensitive areas are identified. Family members, employees and contractors are aware of and understand the management practices to protect these areas.</p>	<p>Some environmentally sensitive areas are identified.</p>	<p>Environmentally sensitive areas are not considered.</p>	<p>YES NO N/A</p>
<p>11.03) How are fields selected for spreading on frozen and snow-covered ground?</p>	<p>No winter applications.</p>	<p>Manure application risks index (MARI) is completed for each field receiving winter manure application. Or, <i>no liquid manure is applied on slopes greater than 3%, and no solid manure is applied to slopes over 6%.</i></p>	<p>Applications are made to fields where runoff to water resources may occur.</p>	<p>YES NO N/A</p>

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
11.04) Is soil erosion under control?	Soil erosion losses are within tolerances as documented by the revised universal soil loss equation (RUSLE2) and the wind erosion equation (WEQ). Minimal evidence of erosion and no evidence of concentrated water flows. Cover crop may be in place.			YES NO N/A
11.05) How is manure generally applied?	<i>Manure is incorporated within 48 hours or injected into the soil, and/or conservation practices (residue management, rough tillage, cover crops, etc.) are used to protect against runoff and erosion losses to surface waters.</i>	Manure is generally surface-applied, and conservation practices are employed to reduce the risk of runoff.	Manure is applied in a manner that results in ponding, soil erosion losses, or manure runoff to adjacent property, drainage ditches or surface water.	YES NO N/A
11.06) How are streams, wetlands, farm ditches and other water bodies protected from manure runoff?	<i>Manure is injected or immediately incorporated. Or, surface applications are not done within 150 feet of surface water. Or, filter strips, riparian buffer strips, grassed waterways and other conservation practices are maintained between fields and surface waters on the farm and around surface water inlets.</i>	Conservation practices are maintained on some fields.	Manure is applied within 150 feet of surface waters and not incorporated without conservation practices. And/or, manure occasionally reaches neighbor's property.	YES NO N/A
11.07) How are field tiles managed to prevent manure discharge?	<i>Tile outlets are monitored, and there is no evidence of manure reaching surface water via tile.</i> Surface inlets are buffered, manure is injected, and setbacks are observed to prevent surface flow to inlets.		Tile outlets are not monitored for manure discharge.	YES NO N/A

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
Irrigation management on manured fields				
11.08) If liquid manure is applied through an irrigation system, is care taken to assure that application rates do not exceed soil infiltration rates?	Yes. <i>Application rates do not exceed soil infiltration rates.</i> <i>Irrigation scheduling is used.</i>		Application rates exceed soil infiltration rates, and/or runoff occurs.	YES NO N/A
11.09) Are appropriate backflow prevention devices in place and properly maintained when applying liquid manure through irrigation?	<i>Backflow prevention safety devices are used</i> and properly maintained when irrigating with liquid manure.	Backflow prevention devices are almost always used and/or properly maintained.	Backflow prevention devices are not used and/or properly maintained.	YES NO N/A
11.10) Is care taken to assure that irrigated manure does not flow into subsurface drains?	Yes. Field conditions are monitored before, during and after irrigation, and appropriate measures are taken to avoid surface water and groundwater contamination.		No care is taken to monitor field conditions, tile drains, etc., when irrigating liquid manure.	YES NO N/A
Emergency Plan and Employee Training				
12.01) Is an emergency plan in place in the event of a manure spill	Up-to-date written plan available and understood by all farm employees.	Incomplete and out-of-date action plan available.	No emergency action plan that deals with manure spills.	YES NO N/A
Mortality Management and Veterinary Waste Disposal				
13.01) How are animal mortalities handled?	Animals are buried, incinerated (requires permit), landfilled, placed in a compost pile or picked up by a rendering service within 24 hours of death or stored for a maximum of 7 days at 40 degrees F or a maximum of 30 days at 0 degrees F before proper disposal of the carcass.		Animals are not buried, incinerated, landfilled, placed in a compost pile or picked up by a rendering service within 24 hours of death. Or, stored for more than 7 days at 40 degrees F or more than 30 days at 0 degrees F before disposal of the carcass.⁵	YES NO N/A
Comments:				

Risk Question	Low Risk – 3	Medium Risk – 2	High Risk -1	Meets Criteria
Dead animal composting				
13.02) If dead animal composting is used, what are the isolation distances for the composting site?	Static pile site is located at least 200 feet from waters of the state, 200 feet from any well, 200 feet from nearest non-farm residence and 2 feet above seasonal high water table.		Site is located less than 200 feet from waters of the state, 200 feet from any well, 200 feet from nearest non-farm residence, and 2 feet above seasonal high water table.⁵	YES NO N/A
13.03) Does composting process follow standards identified in the Bodies of Dead Animals Act, as amended in 2007?	Yes		No.⁵	YES NO N/A
13.04) How are animal health care needles and syringes disposed of?	Sharps are put into a puncture-resistant container, labeled and taken to licensed landfill.		Disposal at landfill without protective containment, or disposed of on the farm.²	YES NO N/A
Odor Management				
14.01) Were the Michigan Right-to-Farm site selection and odor control guidelines used to site a new or expanding livestock production facility (after August 1, 2003)?	Yes, with MDA verification. Yes, and MDA verification is not required. Or, not applicable.	Yes, followed siting GAAMP recommendations. Have not been verified by MDA.	No.	YES NO N/A
14.03) Does the farm have an odor management plan?	An odor management plan, with all five modules, has been developed and implemented.	A partial odor management plan has been developed and implemented.	No odor management plan has been developed.	YES NO N/A
Were you verified or re-verified using Livestock*A*Syst?	Yes	No		

Rev. 3/31/09