Application of Liquid Byproduct

For purposes of this standard, animal byproduct containing less than 10% solids will be classified as a liquid.

Application of liquid byproduct shall not be made outside the active growing period of the crop, unless the producer receives direct prior authorization from ISDA under the following conditions:

1. The E/NMP is up-to-date and all fields to receive liquid nutrients are listed within the plan.
2. The pounds per acre (lbs/A) of nutrients to be land applied is predetermined.
3. Annual soil samples (within the last year) exist on all fields to receive liquid nutrients.
4. Application of nutrients is consistent with management plan of the field (i.e. will not exceed agronomic needs of the crop or force an upward trend in soil phosphorus).
5. Weather forecast predicts no measurable precipitation for the next twenty-four (24) hours.
6. Liquid byproduct shall be applied at amounts not to exceed soil water holding capacity in the crop-rooting zone using UI irrigation scheduling technique (CIS 1039) or similar soil moisture balance method. Application of liquid byproduct through surface or sprinkler irrigation systems will be timed to prevent deep percolation or runoff.
7. ISDA affirms the need to apply liquid nutrients outside of the active crop growing period is necessary and appropriate.

   DISCLAIMER: An ISDA approval to land-apply nutrients during the non-growing season shall not, in any way, indemnify a producer from administrative or enforcement actions in the event the producer commits an off-property discharge, as a result of the application. Producers shall bear the full responsibility for maintaining all nutrients within the boundaries of the property of the dairy.

Application of solid byproduct

Do not surface apply nutrients when there is a risk of runoff, including when:

- Soils are frozen.
- Soils are snow-covered.
- The top 2 inches or more of soil are saturated.

Exceptions for the above criteria can be made when adequate conservation measures are installed to prevent any offsite delivery of nutrients. ISDA will define adequate treatment levels and specified conditions for applications of manure if soils are frozen and/or snow covered or the top 2 inches or more of soil are saturated. At a minimum, producers must consider the following site and management factors:

- Historic growing season (long-term)
- Weather (short-term)
- Soil characteristics
- Slope
- Areas of concentrated flow
- Organic residue and living covers

- Amount and source of nutrients to be applied
- Setback distances to protect local water quality

PLANS AND SPECIFICATIONS

Phosphorus Threshold E/NMP Requirements

An approved Environmental/Nutrient Management Plan document, utilizing Phosphorus Threshold (PT), shall contain the following items:

- Aerial site photograph(s), imagery, topography, or site map(s).
- Distance to surface water
- Location of designated sensitive areas and the associated nutrient application restrictions and setbacks.
- Current and planned plant production sequence or crop rotation.
- Realistic yield goals for the crops.
- All available required test results (e.g. soil, water, compost, manure, organic by-product, and plant tissue sample analyses) upon which the nutrient budget and management plan are based. This shall include nutrient testing results of all material exported from site.

Nitrogen Balance Worksheet, where appropriate • Recommended application rates for P for the entire plant production sequence or crop rotation.

- Listing, quantification, application method and timing for all planned nutrient sources and documentation of all nutrient imports, exports, and onsite transfers.
- When soil P levels are above an agronomic level of 30 ppm, include a discussion of the risk associated with P accumulation and a proposed P draw-down strategy.
- If soil P concentrations are expected to increase above an agronomic level (i.e., when N-based rates are used), E/NMP must include the following documentation:
    - Soil P levels at which it is desirable to convert to P-based planning.
    - A long-term strategy and proposed implementation timeline for soil test P drawdown from the production and harvesting of crops.
    - Management activities or techniques used to reduce the potential for P transport and loss.
    - Calculation of manure produced in excess of crop nutrient requirements.

Phosphorus Site Index E/NMP Requirements

An approved Environmental/Nutrient Management Plan document, utilizing Phosphorus Site Index (PSI) shall contain the following items:

- Aerial site photograph(s), imagery, topography, or site map(s).
- Soil survey map of the site.
- Soil information including: soil type, surface texture, erodibility factor (K_w), slope, hydrologic soil group, drainage class, permeability (K_{sat}), available water capacity, depth to water table, depth to bedrock, restrictive features, and flooding and ponding frequency.
- Distance to surface water

- Location of designated sensitive areas and the associated nutrient application restrictions and setbacks. Assessment of vulnerability of sensitive areas, on a site-specific basis, must address nitrogen, using a nitrogen balance worksheet (see Forms) and/or phosphorus, using the Phosphorus Site Index.
- Current and planned plant production sequence or crop rotation.
- Realistic yield goals for the crops.
- All available required test results (e.g. soil, water, compost, manure, organic by-product, and plant tissue sample analyses) upon which the nutrient budget and management plan are based. This shall include nutrient testing results of all material exported from site.
- Results of P site index ratings
- Nitrogen Balance Worksheet, where appropriate
- Recommended application rates for P for the entire plant production sequence or crop rotation.

- Listing, quantification, application method and timing for all planned nutrient sources and documentation of all nutrient imports, exports, and onsite transfers.
- Listing of all management practices to control nutrient runoff from site
- If soil P concentrations are expected to increase above an agronomic level (i.e., when N-based rates are used), E/NMP must include the following documentation:
- Soil P levels at which it is desirable to convert to P-based planning.
- A long-term strategy and proposed implementation timeline for soil test P drawdown from the production and harvesting of crops.
- Management activities or techniques used to reduce the potential for P transport and loss.
- Calculation of manure produced in excess of crop nutrient requirements.