

SCOE NMP

Nutrient uptake for sprayfields (cropland) under irrigation with no grazing (Fields 1-5, 8, 9, 13-20, 34, 35) is based on combination crops of peanuts, snap beans, carrots, sweet corn, field corn, potatoes, oat, cotton, sorghum. Nutrient uptake for the crop varies between 98 and 402 lbs N/acre/yr depending on the crop combination.

Nutrient uptake for hayland not under irrigation (Field 43) is based on a bermudagrass and ryegrass combination. A conservative N requirement that can be safely applied from year to year by grazing animals is about 385 lbs.N/acre/yr. Application of N via solids application is projected to average 93 lbs. N/acre/yr. 292 N/acre/yr will have to be added (see Table 9).

Soil amendments shall be applied to adjust pH to the specific crop range for optimum utilization of nutrients as per soil test recommendations. Documentation of nutrients applied (including amounts, dates, form, source by field is necessary to evaluate the NMP. Section 5 provides record keeping requirements and forms for use in recording needed data.

Feed Production System

One of the greatest advantages of having the cattle feeding operation associated with Partner Farm is their ability to grow onsite most of the feed that the animals will need. As described in the previous section, the nutrients from the cattle feeding operation will be used to partially meet the nutrient requirements of the all crops on the farm including the forage crops for animal feed. The most likely forage crop rotation to be grown will be a corn/sorghum/ryegrass that will be harvested and placed directly into a bunker silo or silage bags. These crops will be ensiled in the bunker to produce a high quality moisture fodder for the animals. Other crop materials from the vegetable crops and packing operations may also be used as feed stuff for the animals. Additional grain mixes and nutrient feed supplements will also be purchased and stored in the roofed onsite commodity barns.

The cattle will be fed at least twice daily using feed stuff from the bunker silo and commodity barns. The feed will be presented to the animal along a feed-face on each side of the center drive lane. Any waste feed will either be used for supplement bedding in the barns or spread on surrounding fields at agronomic rates.

The roof runoff from the feed barns will be collected in gutters and piped to the large retention pond south of the confinement barns. All surface water drainage from these feed commodity facilities including the bunker silo will also be directed to a retention pond located south and west of the commodity barns, Figure 4. The system is designed so that no offsite discharge will occur from the commodity storage facilities for storms up to and including the 25-year, 24-hour storm event. The retention pond will also handle access road runoff and runoff from the bio-energy facility. An ERP stormwater permit will be modified and submitted to FDEP as part of the NPDES permit process.

Irrigation Water Management

Irrigation is a vital component to the successful implementation of this NMP and needed to ensure the planned crop production. See Appendix G for fresh water irrigation water management (IWM) plan. Note that since the wastewater is used as an alternative source of irrigation water, the net consumptive use of water on the farm is essentially unchanged with the addition of the cattle and dairy operations.