

### **Manure Odor Management**

The manure products in the cattle barns are routinely mixed with dry bedding materials to maintain an aerobic condition within the bedding/manure materials to minimize odor. The barns are also cleaned on a routine basis with solids being land applied or delivered on-site to the receiving pit of the methane digester. The dairy barns are flushed several times days. These practices and the physical location of the animal housing facilities within the farm property ensures minimize odors, particularly at farm boundaries. The solids and liquid effluent coming out of the methane digester will be virtually odor free because the odorous organics in the manure will be fully broken down during digestion process. In addition to the fact that the effluent has little, if any odor, the effluent will be diluted by a factor of 4:1 with freshwater at the pivots before land application, thus ensuring no detectable odors during land application.

## **SECTION 5: RECORD KEEPING**

This section addresses records and documentation required for the NMP. Documentation of management and implementation activities associated with the NMP provides valuable benchmark information that can be used to adjust the NMP to better meet production objectives. Record keeping (manure analysis and feed analysis) have been recorded for the cattle feeding operation, but no onsite data are available yet for the dairy operation and therefore literature values were used for the development of the nutrient balance. Crop and waste production records were used to verify the NMP nutrient balance and help create future cropping sequence as shown in Table 9.

### **General**

Field-by-field records are to be kept by the producer for a minimum of 5 years or the length of the cropping rotation, whichever is longer, for fields where the producer has control to apply waste. A record of nutrient application shall be maintained at the farm for the life of the system. Record keeping is to assist in maximizing the utilization of the land available and in the operation and maintenance of the waste management system. Plant tissue samples should be analyzed for N and P<sub>2</sub>O<sub>5</sub> at each harvest with the results recorded on the ledger. See Table 10 for testing schedules.

Records will include the following: