## Note: Organic and Non-Organic Fertilizer Processing

The Farms Choice Fertilizer Plant produces various fertilizer products and takes great care in not commingling Organic with Non-Organic products. Organic products are always produced first and Non-Organic products afterwards. This will ensure that Organic products are not adulterated with Non-Organic products.

## Organic "heat treated" dehydrated chicken manure pellets 4-2-2 manufacturing procedure.

The organic chicken manure is derived from the laying and pullets facilities (Arlington North barns 13 through 26, Arlington South barns 8 through 12, and the Pullets barns A through G), and transported to our fertilizer plant windrow site where the manure is aligned into windrows with an assigned posted number.

- The raw manure is 100% wet; during the time at the windrow site the manure dehydrates losing about 2/3 of volume and only 1/3 is left.
- Each windrow is turned over once a day five times a week for about four (4) to eight (8) weeks. When the manure is dry, samples are collected and sent to be analyzed for NPK and heavy minerals. Then it is move to the filter screen.
- The manure is run through the 3/8 inch metal screen so that all foreign objects and oversize manure are removed.
- After the manure is run through the screen it is placed in holding bins.
- The manure is then transferred to the Mix and Fold Auger were 25 to 30 pounds per ton of Action Fat is added (Action Fat is added as a processing aid to help process dry chicken manure into pellets). A weight meter device is used to monitor the Action Fat.
- After the Mix and Fold auger, the manure goes thru the Conditioner Chamber where it gets hydrated and heat treated with steam. The heat treatment is monitored and recorder with a chart recorder, to ensure that the manure reaches a temperature equal to or greater than 165° F. If the temperature drops below 165° f., the silos auger, elevator, mix and fold auger, and the conditioner feeder auger will stop automatically. At that moment the operator will troubleshoot the problem and make the necessary repairs and adjustments, and log the corrective actions.
- After the Conditioner Chamber, at the Mill's Die, the manure gets pelletized. Then, the product is moved to cooler #1, and transferred to the drying oven.
- At the drying oven the pellets gets the final drying process at a temperature equal to or greater than 165° F. and the temperature is monitored and recorded every half hour, then the pellets product moves to cooler #2.
- After the cooler #2, the finished product is transferred to the hopper to be bagged on totes, or plastic bags as follow:
  - 1. The totes are tied closed with a plastic cable ties, and labeled with an assign Lot Number, and
  - 2. The plastic bags are heat seal, and labeled with an assign Lot Number.
- During the bagging process, samples are pulled and send for laboratory testing
- Every Lot is tested by an accredited third party testing laboratory, and the Lot is tested for: E coli, EHEC, Fecal Coli form, and Salmonella.
- Every Lot must be placed on hold for 72 hours until the lab test comes back negative with a Certificate of Analyzes before the Lot is ready for shipping.
- Every fertilizer lot will be tested twice for moisture content (12% or less) and the tests will be performed in-house lab by a trained employee with a calibrated OHAUS MB45 moisture analyzer.

## Organic "Heat Treated" Pellets Process Flow Diagram

