THE FARMS CHOICE

AN ALL-NATURAL PRODUCT

Organic System Plan

In Compliance with
National Organic Program
7 CFR 205

ED_001509B_00000818-00001

1. Organizational Structure

Billy Hickman – (Owner) Vice President of Production
bhickman@hickmanseggs.com

Jim Marshall- Sales Manager
jmarshall@hickmanseggs.com

Rick Teal- Operations Manager
Rteal@hickmanseggs.com

Kevin Whitehurst – Organic Fertilizer Integrity Manager
kwhitehurst@hickmanseggs.com

Shari Yeatts – Compliance Manager – HACCP Coordinator
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2. Policy

The Farms Choice Fertilizers Organic System Plan is a written plan specific for our organic fertilizer processing plant. This plan is the central document that details how our organic fertilizer is processed and handled in compliance with all applicable National Organic Program (NOP) regulations under 7 CFR 205.
This Organic System Plan will address all requirements identified in Subpart C: Organic Production and Handling Requirements (205.200 – 205.290) of the NOP regulations.

Employees at the fertilizer processing plant handling organic fertilizer will be trained and demonstrate appropriate knowledge and skills regarding the requirements of the NOP 7 CFR 205. Employees will be active participants in the implementation, training, and continuous evaluation and improvements of all aspects of this Organic System Plan.

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3. General Supplier Profile

- **Location**
  Hickman's Egg Ranch, Inc.
  The Farms Choice Fertilizer Plant
  32902B West Ward Hwy.
  Arlington, Arizona 85322
  Phone: 623-872-2364

- **Contact**
  Jim Marshall, Sales Manager
  Office 623-872-2390
  Cell 623-694-0442
  Kevin Whitehurst, Food Safety Analyst
  Cell 623-696-1739
  Billy Hickman, Owner
  Office 623-872-2373
  Cell 623-764-0757

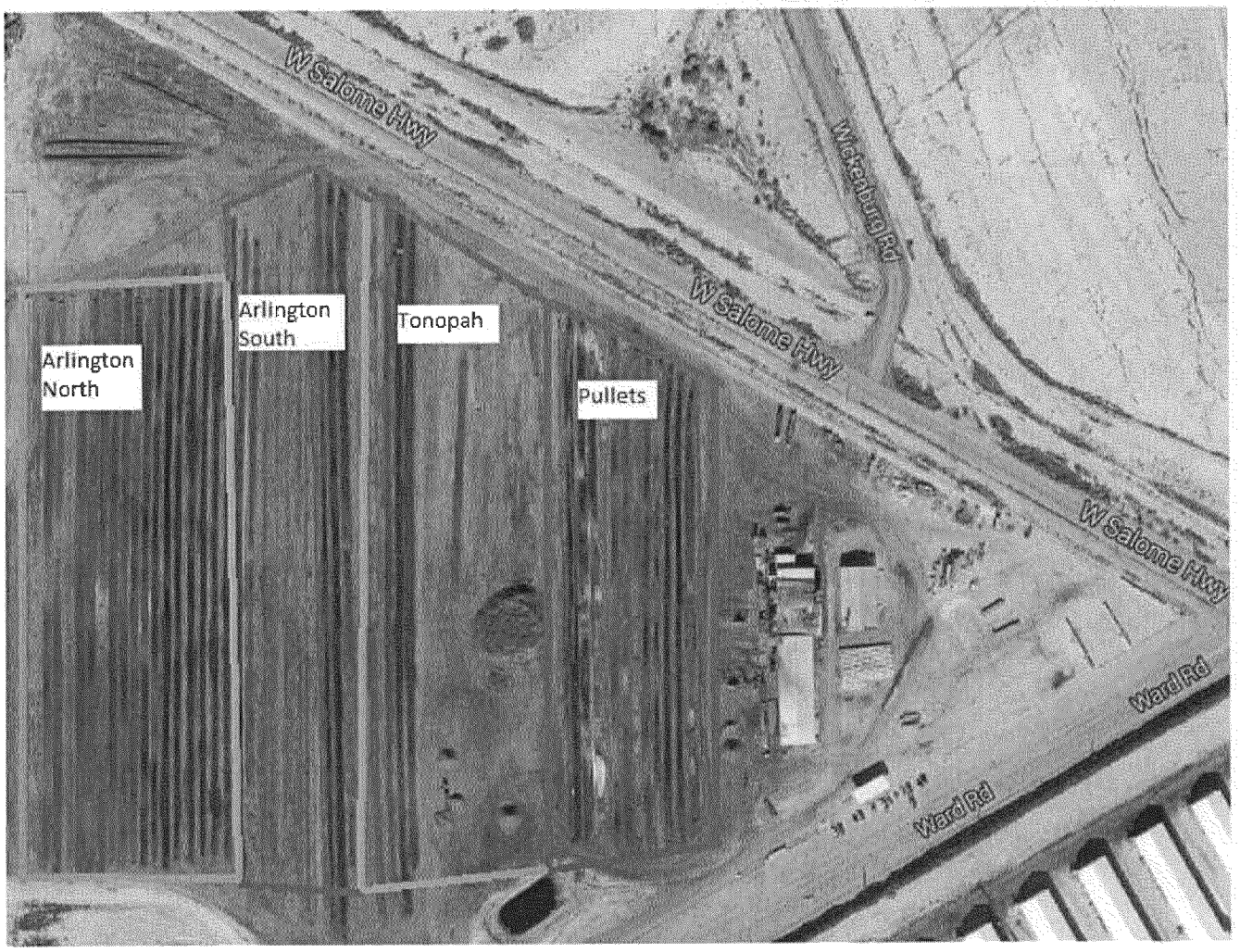
- **Raw Ingredient**
  Chicken manure

- **Product Description**
  Organic Fertilizers:
  The Farms Choice Dehydrated Chicken Manure NPK 4-2-2 (OMRI Listed) "Raw"
  The Farms Choice Dehydrated Chicken Manure Pellets 2-4-2 + 8% Ca
  The Farms Choice Dehydrated Chicken Manure Pellets 4-2-2 (OMRI Listed)
  The Farms Choice Heat-Treated Chicken Manure 2-4-2 + 8% Ca
  The Farms Choice Heat-Treated Chicken Manure 4-2-2 (OMRI Listed)

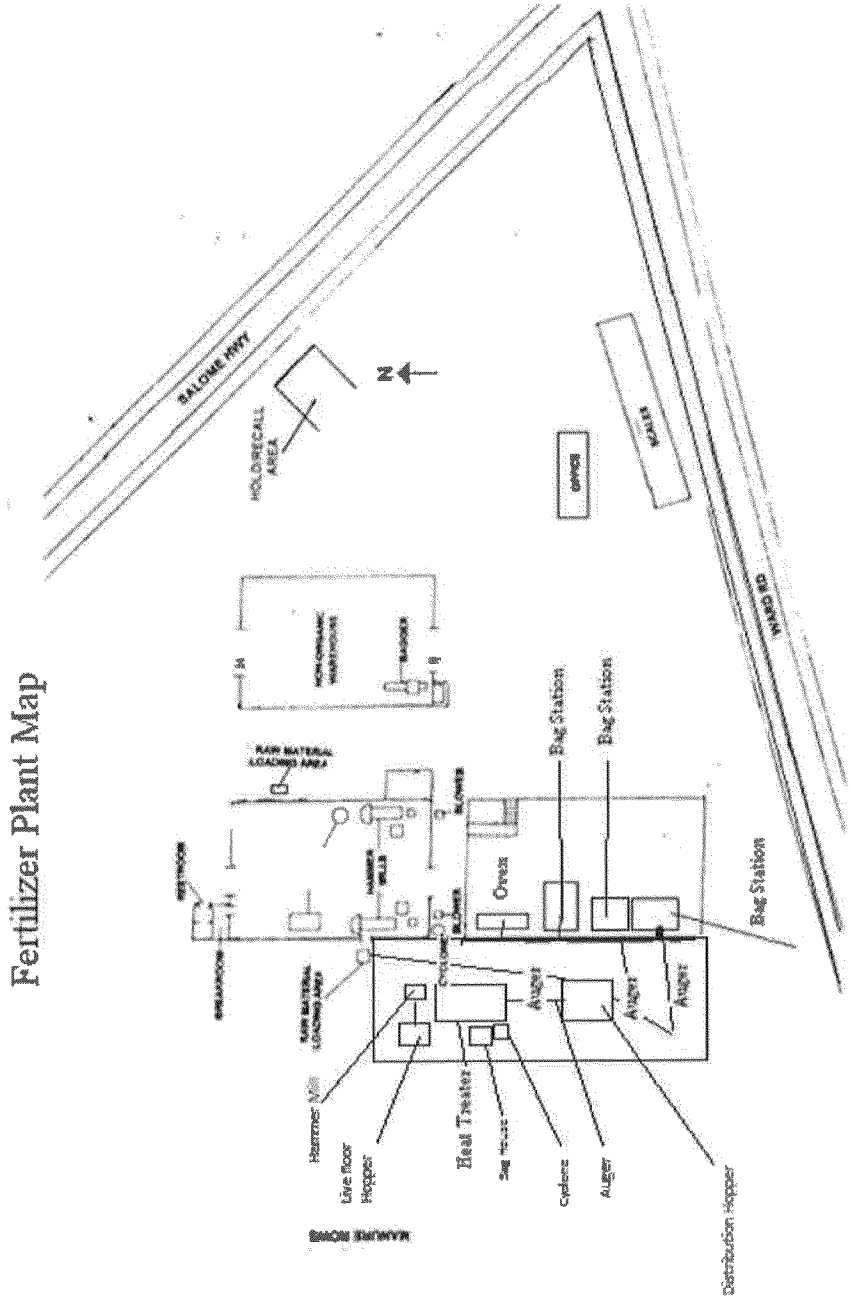
- **Usage**
  Agricultural and individual use of compounds given to plants to promote growth; they are usually applied via the soil to add nutrients like nitrogen, phosphorus, calcium, potassium, sulfur and magnesium.

- **Packaging**
  Wholesale – Bulk, 2,000 lbs., 1,000 lbs., 500 lbs. Totes, 50 lbs. Bag and 15 lbs. Bucket
- **Distribution**
  Wholesale

Fertilizer Plant Site Map



Fertilizer Plant Map



Organic Equipment List:

Equipment	Qty.	Use for:
LP Gas Forklift	4	General use and to remove full totes from the finish product loader to the staging area.
Load all	3	It is used as a front loader and forklift, especially to load trailers.
Windrow Turner	3	Turns and mix the windrows manure.
Tractor	2	Pulls the windrow turner.
Front End Loader	4	These front end loaders are used to load raw material on trailers, screeners, hoppers, and to make piles of raw material around the fertilizer plant.
Side Dump Trailer	3	Are used for hauling chicken manure from the Lay and Pullets Houses and delivered to the fertilizer plant windrow sites. As well as, material from windrows to screener
Screener	2	Screens dry chicken manure.
Pellet Mill	2	Makes fertilizer pellets.
Truck Scale	1	Weighs trucks.
Totes Scale	4	Weighs full tote bags with pellets.
Cyclone	5	For separating the dust from the air.
Boiler	1	Applies 25 lbs. of steam (210° F.) for heat treatment
32' Rotary Dryer	1	For drying and heat treating manure
Hammer Mill	1	Used on the heat treater to reduce the size of the material
Dump Truck	1	Used to move material from windrows to screener

4. Fertilizer Plant Procedures

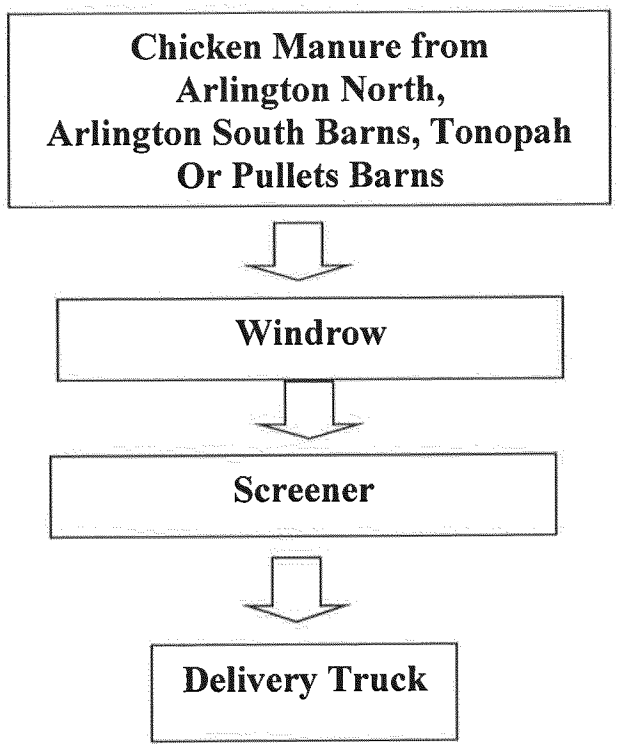
Note: Organic and Non-Organic Fertilizer Processing
The Farms Choice Fertilizer Plant produces various fertilizer products and takes great care in not commingling Organic with Non-Organic products. Organic products are always produced first and Non-Organic products afterwards. This will ensure that Organic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

4.1. Organic Chicken Manure Raw, Pellets and Heat treated Chicken Manure Manufacturing

a. Bulk organic raw dehydrated chicken manure manufacturing procedure.

- The organic chicken manure is derived from the laying and pullets facilities Arlington North, Arlington South, Tonopah and the Pullets, and transported to our fertilizer plant windrow site where the manure is aligned into windrows with an assigned posted number.
- Each windrow is turned over until sufficiently dry enough to process. When the manure is dry, two samples are collected and sent to be analyzed for NPK and heavy minerals.
- The heavy minerals and PK sample is sent to be analyzed by an accredited third party laboratory.
- The N sample will be analyzed in-house lab by a trained employee or sent to accredited third party lab if LECO is down. At this point, the results of the NPK sample will determine if the product is 4-2-2 or 2-4-2 + 8% Ca.
- But if the NPK is too low; the manure of that windrow will be; either, transferred to a new windrow at the compost windrow's site, or combined with another windrow with high NPK.
- Then, after the NPK has been established; the manure is moved to the screener.
- The manure is run through the ¾ inch metal screen so that foreign objects and oversized manure are removed.
- Then the organic raw dehydrated chicken manure is loaded into bulk trailers for delivery.

Organic Raw Dehydrated Chicken Manure Bulk Flow Diagram



b. Organic Dehydrated Chicken Manure Pellets 4-2-2 or Pellets 2-4-2 + 8% Ca manufacturing procedure.

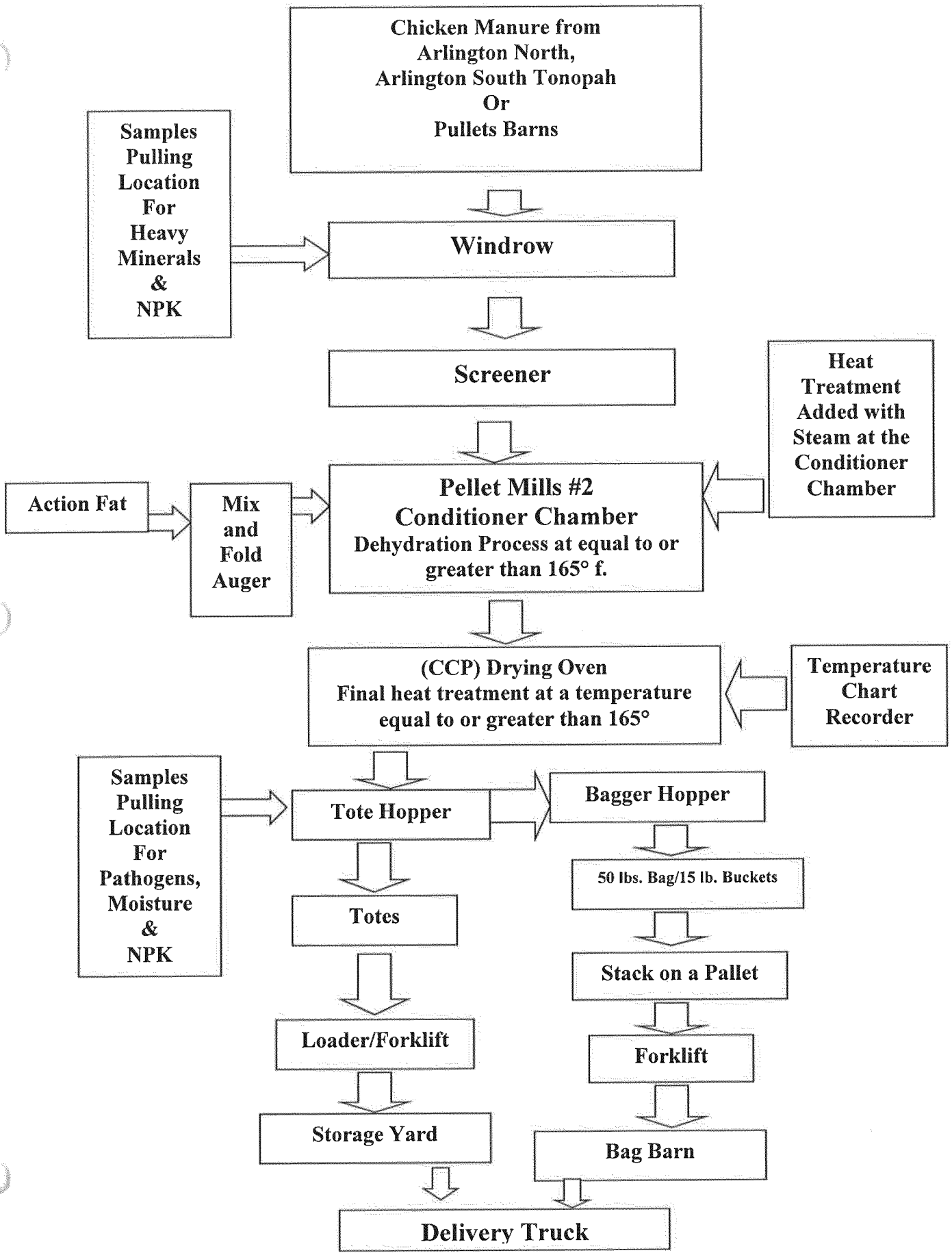
The organic chicken manure is derived from the laying and pullets facilities Arlington North, Arlington South, Tonopah and the Pullets, and transported to our fertilizer plant windrow site where the manure is aligned into windrows with an assigned posted number.

- Each windrow is turned over until sufficiently dry enough to process. When the manure is dry, two samples are collected and sent to be analyzed for NPK and heavy minerals.
- The heavy minerals and PK sample is send to be analyzed by an accredited third party laboratory.
- The N sample will be analyzed in-house lab by a trained employee or sent to accredited third party lab if LECO is down. At this point, the results of the NPK sample will determined if the product is 4-2-2 or 2-4-2 + 8% Ca.
- But if the NPK is too low; the manure of that windrow will be; either, transfer to a new windrow at the compost windrow's site, or combined with another windrow with high NPK.
- Then, after the NPK has been establish; the manure is moved to the screener.
- The manure is run through the ¾ inch metal screen so that foreign objects and oversize manure are removed.
- After the manure is run through the screen it is placed in a staging location.
- The manure is then transferred to the Mix and Fold Auger were 25 to 30 pounds per ton of Action Fat or Vegetable Oil is added *(Action Fat or Vegetable Oil 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 or Vegetable Oil.
- After the Mix and Fold auger, the manure goes thru the Conditioner Chamber where it gets hydrated and heat treated with steam.
- After the Conditioner Chamber, at the mill's die, the manure gets pelletized. Then, the product is transferred to the drying oven.
- At the drying oven the pellets get the final heat treatment at a temperature equal to or greater than 165° F. and the temperature 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 operator will troubleshoot the problem and make the necessary repairs and adjustments, and log the corrective actions, 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:

The totes are tied closed with a plastic cable ties, and labeled with an assign Lot Number, and

- During the bagging process, samples are pulled and send for laboratory testing.
- Every Lot is tested by accredited third party testing laboratories. One test for pathogens: E coli, EHEC, Fecal Coliform, and Salmonella, and the other for NPK and Moisture content.
- And the Lot must be placed on hold until the pathogen test comes back with the appropriate results before the Lot is ready for shipping.
- Every fertilizer lot will be tested 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.
- If the product is bagged:
    1. The plastic bags are heat seal, and labeled with an assign Lot Number.

Organic Dehydrated Chicken Manure Pellets Process Flow Diagram

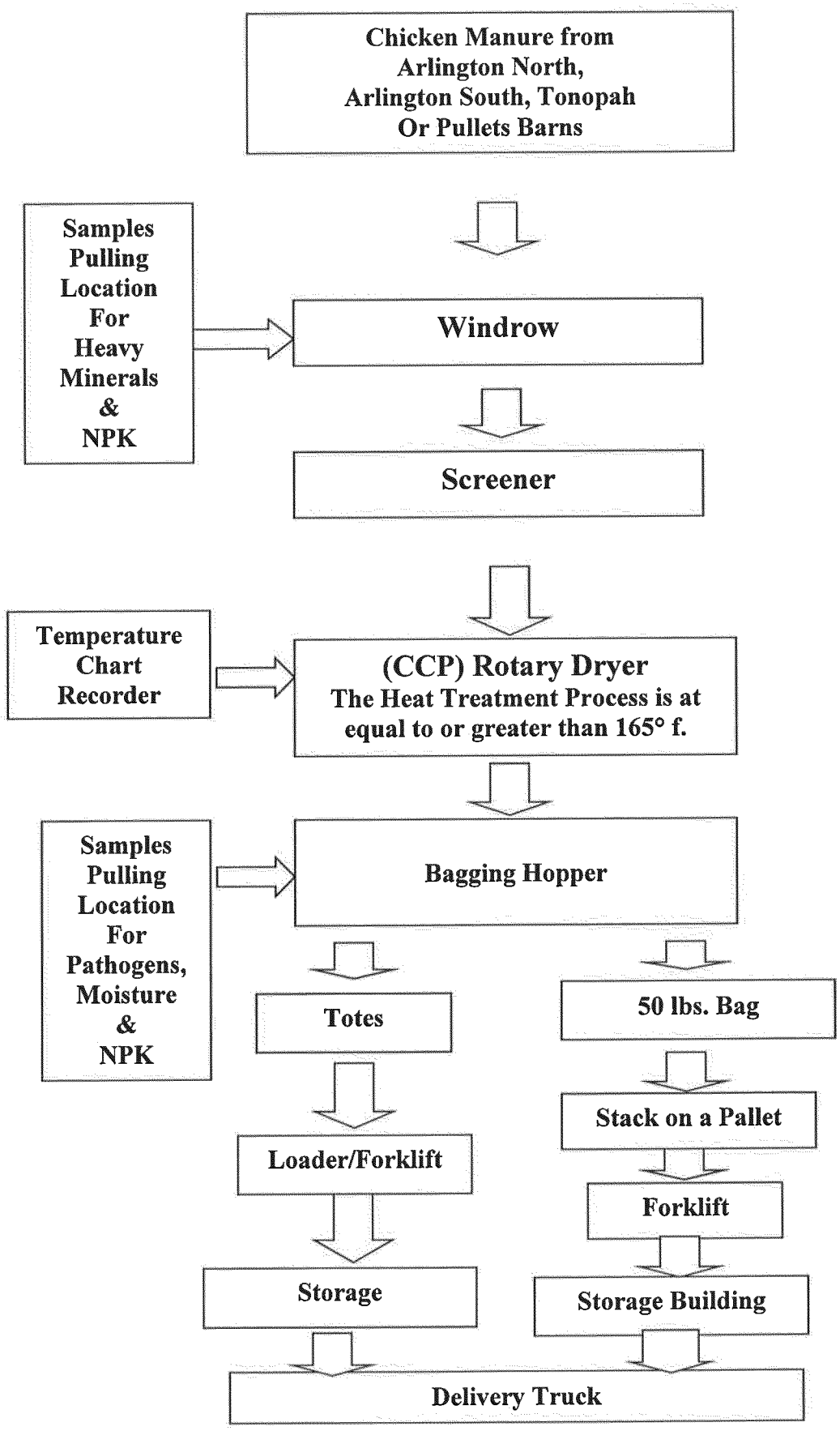


c) The Farms Choice Heat-Treated Chicken Manure 4-2-2 (HTCM 4-2-2) or 2-4-2 + 8% Ca (HTCM 2-4-2 + 8% Ca) manufacturing procedure:

The organic chicken manure is derived from the laying and pullets facilities Arlington North, Arlington South, Tonopah and the Pullets, and transported to our fertilizer plant windrow site where the manure is aligned into windrows with an assigned posted number.

- Each windrow is turned over until sufficiently dry enough to process. When the manure is dry, two samples are collected and sent to be analyzed for NPK and heavy minerals.
- The heavy minerals and PK sample is send to be analyzed by an accredited third party laboratory
- The NPK sample will be analyzed in-house lab by a trained employee or sent to accredited third party lab if LECO is down. At this point, the results of the NPK sample will determined if the product is 4-2-2 or 2-4-2 + 8% Ca.
- But if the NPK is too low; the manure of that windrow will be; either, transferred to a new windrow or combined with another windrow with high NPK.
- Then, after the NPK has been establish; the manure is moved to the screener.
- The manure is run through the ¾ inch metal screen so that foreign objects and oversize manure are removed.
- After the manure is run through the screen it is placed in a live floor hopper that feeds the hammer mill leading up to the 32 ft. Rotary Dryer.
- At the Rotary Dryer, the manure goes thru the Rotary Chamber where it gets heat treated. The heat treatment is monitored and recorded 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 operator will troubleshoot the problem and make the necessary repairs and adjustments, and log the corrective actions.
- After the manure is heat treated thru the Rotary Chamber, the finished product is discharged into an auger where it cools down.
- Then, it is transferred to the bagging hopper where it gets bagged in totes, as follows:
  1. The totes are tied closed with a plastic cable ties, and labeled with an assigned Lot Number
- During the bagging process, samples are pulled and sent for laboratory testing.
- Every Lot is tested by accredited third party testing laboratories. One tests for pathogens: E coli, EHEC, Fecal Coliform, and Salmonella, and the other for NPK and Moisture content.
- And the Lot must be placed on hold until the pathogen test comes back. Negative with a Certificate of Analyzes before the Lot is ready for shipping.
- Every fertilizer lot will be tested for moisture content (12% or less) and the tests will be performed by a trained employee with a calibrated OHAUS MB45 moisture analyzer.
- If the product is bagged: The plastic bags are heat seal, and labeled with an assigned Lot Number.

Organic Heat-Treated Chicken Manure Process Flow Diagram



4.2. Raw Chicken Manure Hauling Procedures

All the chicken manure is derived from the egg laying and pullets facilities. These facilities are: Arlington North, Tonopah, Arlington South and Pullets Houses.

a. The manure is conveyed out of the chicken houses on conveyor belts into a side dump trailer.

b. When the trailer is full, the driver logs in the load of raw manure on the *Driver's Daily Load Count log sheet; on the log sheet the driver puts the date, his name, trailer number, the number of loads the he haul out, from what facility, and to windrow location number. One sheet per facility will be fill out and turn in at the end of the day.

c. The driver transfers the load to the manure windrows sites, and dumps the load on the designated windrow number.

d. Each windrow will be identified with a posted sign with the site and row number.

e. The driver will make the windrow a size depending on weather conditions, (smaller during the summer, larger during the winter).

f. When the manure is dry, the dry manure will be transferred to the manure screening area with the same windrow sign for identification.

Warning - In case of the any side dump trailer is used to haul conventional compost manure, or contaminate raw or finished product. The side dump trailer will get washed and disinfected thoroughly before it can be used to haul organic chicken manure.

**(See Driver's Daily Load Count Log on page 16)*

a. **The Lot Numbering system** are created as follow:

EXAMPLE: Lot Number: ***AS14411B***

Code	AS	144	11	B
Signifies	*Windrow Site*	*Julian Date: production*	*Year: 2011*	*Windrow Number*

1) **AS, AN or P** – the first letters of each *site where the windrows are located,
2) **144** – the Julian date for production into bulk or pellets products,
3) **11** – the last two numbers of the year, and
4) **A through Z** – whichever is the letter assigned to each windrow.

The lot number will be located on the labels (at each bag and totes), Bill of Lading, Invoice, and the Certificate of Analysis.

4.3. Windrows Turning Procedures

The organic manure windrow site is divided in four separate sites. These sites are as follow:

- Site AN (Arlington North) windrows,
- Site AS (Arlington South) windrows
- Site P (Pullets) windrows
- Site T (Tonopah) windrows

a. Each windrow has a posted sign with the site and windrow identification.
b. Every windrow is made with loads of raw manure from each location. (Arlington North, *Arlington South Lay Houses, Tonopah and Pullets Houses), and

Note: Arlington South Lay Houses 1 through 7 are used for compost).

c. Each windrow length will be different heights depending on weather conditions.
d. The windrows are turned until sufficiently dry enough to process.
e. The windrow turner operator keeps a daily log for each windrow. This daily log is turn in to the office at the end of each windrow drying cycle.
f. At that moment, the trained staff member collects samples from the windrow, at 12 separate locations, mixes them together and sends two samples to be analyzed for NPK and heavy minerals.
g. The heavy minerals and PK sample is sent to be analyzed by an accredited third party laboratory.
h. The N sample will be analyzed in-house lab by a trained employee or is sent to an accredited lab if the LECO is down. At this point, the results of the NPK sample will determined if the product is 4-2-2 or 2-4-2 + 8% Ca.
i. But if the NPK is too low; the manure of that windrow will be; either, transferred to a new windrow at the compost windrow's site, or combined with another windrow with high NPK.
j. Then, after the NPK has been established; the manure is moved to the screener.
k. This daily log consist of the following: *(see the Windrow turning Daily Log)*
    - Windrow Site (AN, AS, T or P)
    - Date
    - Windrow Number
    - Windrow Age
    - Number of Times Turn
    - Windrow Dry Yet? (Yes or No)
    - Comments
    - Operator's Name
l. The operator removes the windrow posted sign before beginning to turn the windrow and after turning he replaces the posted sign on the windrow.
m. The windrow turner operator will not use the same equipment to turned conventional compost windrows unless properly sanitized

Warning - In case of the windrow turner is use at the conventional compost windrows. The windrow turner will get washed and disinfected thoroughly before it can be used at the organic manure windrows.

4.4. FC Production Log

When a window comes out below 4% nitrogen, a windrow greater than 4% is blended with the windrow that is below 4%.

1. The lower nitrogen windrow is dumped over the length of the higher nitrogen using a side dump trailer.
2. The windrow turner, turns the row multiple times to incorporate fertilizers together.
3. A composite sample from 12 spots along the windrow are compiled and sent back for nitrogen testing.
4. The administrative assistant is given the records from both windrows to create an FC windrow letter

4.5. Dry Chicken Manure Screening Procedures

When the raw chicken manure at the windrow is dry and the NPK has been established. It is transferred to the screening area.

a. The haulers will make a big pile and post the same windrow identification marker on the pile.

b. The dry chicken manure screener operator will then begin screening, but before he starts screening; he logs in the windrow identification on the Dry Chicken Manure Screening Operator's Daily Log.

c. The log consist of the following: *(see the Dry Chicken Manure Screening Operator's Daily Log on page 20)*
   - Date.
   - DCM Windrow Number,
   - Volume Total of Oversize DCM,
   - Screen Product Volume Total of DCM
   - Comments, and
   - Name.

d. The operator runs the dry chicken manure through a screener machine where the foreign objects and *oversize manure are removed at the ¾ inch metal screen.

**The oversize manure is loaded on a trailer and transferred to an area where it is accumulated and ready for bulk sale non-organic or incorporated into another windrow*

e. After the dry chicken manure is run through the screener, the operator with a front loader creates cones for the material close to the mill.

Warning - In case of the screener machine or the front loader are used to screen or load conventional compost manure. The screener machine and front loader will get washed and disinfected thoroughly before it can be used with the organic dry chicken manure.

4.6. * Organic Fertilizer Processing Log Procedures

The Organic Fertilizer Processing Log record will be initiated once the final product is produced. The lot number assignment and the processing of the Dehydrated Chicken Manure Pellets or the Heat Treated Chicken Manure are next on the log. At this time the pellet mill operator, DCM screening operator or the manager will get together to assigned the correct lot number.
The organic fertilizer processing log is completed by the manager or the administrative assistant, and the following are the procedures:

1. Raw Organic Chicken Manure In
    a. The windrow location will be checked *(AN-Arlington North, T-Tonopah, AS-Arlington South, or P-Pullets);*
    b. The windrow number will be one letter (A through Z);
    c. Each windrow length will vary depending on weather conditions. Approximate windrow size depending on water.
    d. The number of loads per windrow.
    e. Volume total.

2. Dry Chicken Manure for Processing – screened/ milled
    a. NPK Results
    b. Date,
    c. Volume Total of Dry Chicken Manure after screening.

3. Lot Numbers assigned:
    a. Finish Product description,
    b. Processing Date,
    c. Julian Date,
    d. Lot Amount (lbs.),
    e. Number of Totes, and
    f. Lot Number assigned.

4. If the product is processed in more than one day, the product will receive lot numbers with only the Julian date different for each day.

**(See the Fertilizer Processing Log)*

4.7. Organic Dehydrated Chicken Manure Pellets 4-2-2 or Pellets 2-4-2 + 8% Ca Processing Procedures

At this point, the dry chicken manure is already screened and ready for processing into pellets; either, pellets 4-2-2 or pellets 2-4-2 + 8% Ca.

b. The mill operator gets the pellet mill ready, with the right steam pressure from the boiler, and the right amount of fat from Action Fat or Vegetable Oil tank.
c. The operator turns on the augers that transfers the dry chicken manure into the Mix and Fold Auger; where at this point *Action Fat or Vegetable Oil is added, from 25 to 30 pounds per ton of product is added.

**Action Fat or Vegetable Oil is added as a processing aid to help process dry chicken manure into pellets.*

d. A weight meter is used to monitor the Action Fat or Vegetable Oil.
e. After the mix and fold auger, the manure goes thru the Conditioner Chamber where it gets hydrated and heat treated with steam.
f. 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.
g. At the drying oven the pellets get the final heat treatment process at a temperature equal to or greater than 165°F., and the temperature is monitored and recorded with a chart recorder, to ensure that the manure reaches a temperature of equal to or greater than 165°F., and also the temperature is visually monitored and logged every half hour by the operator. If the temperature drops below 165°F., the silos auger, elevator, mix and fold auger, pellet mill and conveyor will stop automatically. At that moment the operator will troubleshoot the problem and make the necessary repairs and adjustments, and log the corrective actions. Then the pellets goes through cooler #2.
h. Subsequent, 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 label with an assign Lot Number, and
    2) The plastic bags are heat sealed and labeled with an assigned Lot Number.
i. The mill operator during the bagging process pulls samples every 15 minutes from the bagging hopper, and the samples are sent for testing.
    1) Every Lot is tested by accredited third party testing laboratories. One test for pathogens: E coli, EHEC, Fecal Coli form, and Salmonella, and the other for NPK and Moisture content. *(See the Finished Product NPK Results Log on pg.51)*
j. Also, the operator pulls two separate samples for moisture content. The tests are performed in-house lab by a trained employee. *(See the Fertilizer Moisture % Content Log on pg.52)*
k. The mill operator records the assigned Lot Number on the Organic Pellet Processing Daily Inventory Log, and keeps track of the amount of pellets and totes produce from each Lot. *(See the Organic Pellet Processing Inventory Log on page 26)*
l. The mill operator stores the finish totes by lots on the storage pad, and the finish product is put on hold until; the testing is done and the result are negative.

Notice – *the finish product that test presumptive will be place on the Holding Area until results are received. If the test comes back negative the product will be move out of the Holding Area and ready for shipment, but if it is positive again the product will be sent to a windrow* to go through the drying down and pelletizing process again or composting site; *and will get recorded on the Hold Product Log.*

4.8. Organic Heat-Treated Chicken Manure 4-2-2 (HTCM 4-2-2) or 2-4-2 + 8% Ca (HTCM 2-4-2 + 8% Ca) Processing Procedures

At this point, the dry chicken manure, already screened, is placed in a hopper that feeds the 32-foot Rotary Dryer for processing into; either: Heat-Treated Chicken Manure 4-2-2 or Heat-Treated Chicken Manure 2-4-2 + 8% Ca.

A. Once a bucket load of manure is dropped into the live floor hopper, the material is run through a hammer mill and thrown into the rotary dryer.

B. At the Rotary Dryer, the manure goes thru the Rotary Chamber where it gets heat treated. The heat treatment is monitored and/or recorded 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 operator will troubleshoot the problem and make the necessary repairs and adjustments, and log the corrective actions.

C. After the manure is heat treated thru the Rotary Chamber, the finished product is discharged into an auger where it cools down.

D. The manure is then stored in a distribution hopper that can feed manure to either the Heat treated tote stations or into mill 2.

E. Subsequent, the finished product is transferred to the bagging hopper where it gets bagged in totes, or plastic bags as follow:
   1) The totes are tied closed with a plastic cable ties, and labeled with an assigned Lot Number, and/or
   2) The plastic bags are heat sealed, and labeled with an assigned Lot Number.

F. The operator during the bagging process pulls samples every 15 minutes from the bagging hopper, and the samples are sent for testing.
   1) Every Lot is tested by accredited third party testing laboratories. One test for pathogens: E coli, EHEC, Fecal Coliform, and Salmonella, and the other for NPK and Moisture content. *(See the Finished Product NPK Results Log on pg.51)*

G. Also, the operator pulls two separate samples for moisture content. The tests are performed in-house lab by a trained employee. *(See the Fertilizer Moisture % Content Log on pg.52)*

H. The operator records the assigned Lot Number on the Organic Heat Treated Chicken Manure Processing Daily Inventory Log, and keeps track of the amount and totes produce from each Lot. *(See the Organic Heat Treated Chicken Manure Processing Inventory Log on page 27)*

I. The mill operator stores the finish totes by lots on the storage pad, and the finish product is put on hold for 72 hours, until; the testing is done and the result are negative.

Notice – *the finish product that test presumptive will be placed in the Holding Area until results are received. If the test comes back negative the product will be move out of the Holding Area and ready for shipment, but if it is positive the product will be sent to the windrow site or composting site; and will get recorded on the Hold Product Log.)*

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4.9. Lab Analysis

a. Every *Lot is tested for Pathogens by an accredited third party testing laboratory and has its own analysis performed. The Lot is tested for:
   - E coli
   - EHEC
   - Fecal Coliform
   - Salmonella

**Samples are collected, one every 1.5 minutes during processing, from each lot and label each bag by the operator, and the administrative assistant prepares the lab submission forms and packages the samples. The samples are sent to an accredited Lab.* See sampling plan*

b. Disposition Procedures for Hold product that tested Presumptive twice:
   - The finish product that tests presumptive will be place in the Holding Area when results are received.
   - If all tests come back negative the product will be moved out of the Holding Area and ready for shipment.
   - But if it tested positive; the product will be sent to the conventional compost windrow for composting, and will be recorded on the Hold Product Log.

c. **The NPK and Heavy Mineral analysis is conducted once for each windrow for the following:**

Fertilizer - Complete Analysis	**Heavy Metals Group**
Total Nitrogen, N	Arsenic, As
Phosphorus, P_2O_5	Barium, Ba
Potassium, K_2O	Cadmium, Cd
Total Calcium, Ca	Chromium, Cr
Total Magnesium, Mg	Copper, Cu
Total Sodium, Na	Lead, Pb
Total Sulfur, S	Mercury, Hg
Total Iron, Fe	Nickel
Total Zinc, Zn	Selenium, Se
Total Manganese, Mn	Silver, Ag
Total Copper, Cu	Zinc, Zn
Total Boron, B	

   1) The trained staff member collects samples from each windrow, at 12 separate locations, mixes them together and sends two samples to be analyzed for NPK and heavy minerals.
   2) The heavy minerals and PK sample is send to be analyzed by an accredited third party laboratory.
   3) The N sample will be analyzed in-house lab by a trained employee or an accredited third party laboratory if the LECO is down. At this point, the results of the NPK sample will determined if the product is 4-2-2 or 2-4-2 + 8% Ca.
   4) **But if the NPK is too low; the manure of that windrow will be; either, transfer to a new windrow at the compost windrow's site, or combined with another windrow with high NPK.**
   5) After the NPK has been established; the manure is moved to the screener. *(see the Windrow's NPK Results Log on page 50)*
   6) Then, a sample from the finished product will be sent to be analyzed for N

d. Every finished product lot will be tested *moisture content of 12% or less, and the test will be performed at the in-house lab by a trained employee with a calibrated OHAUS MB45 moisture analyzer. *(*See the Fertilizer Moisture % Content Log)*

e. The production water is analyzed quarterly by an accredited lab.

f. The Laboratories reports copies are filed and kept for five years.

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4.10. Shipping Procedures

The Fertilizer Plant HACCP Plan contains the shipping procedures.

4.11. Finished Product Daily Inventory Procedures

A daily inventory will be taken of all finished products at the end of the shift. Every product will be recorded on the inventory:

- Date,
- Name of the person taking the inventory,
- Description of product,
- Size (2,000 lbs., 1,000 lbs., 500 lbs. totes, 20 lbs. 50 lbs. bags, 15 lb. buckets),
- Lot Numbers – all finished products will be inventoried by lot numbers.
- Beginning Inventory
- Shipped,
- Free Samples,
- Product Destroy,
- Product Transfer (to small bags or other smaller totes)
- Ending Inventory.

(See the Organic Finished Products Daily Inventory list, and the Finished Product Individual Lot Inventory)

4.12. Incoming Materials Procedures

The Fertilizer Plant SOP contains the Incoming Ingredients and packaging Procedures.

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4.14. Pellet Mill Purging Procedures

a. At the end of the day, the pellet mills get cleaned and purged with corn meal.

b. The corn meal is run through the pellet mill die clearing all the pellets out of the die.

c. This process cleans the pellet mill die so that it is ready for the next day's production.

d. The corn meal purged is also used to clean the pellet mill die after non-organic product was run through the machine, and it is a procedure already established for this purpose.

e. Each pellet mill has its own cleaning schedule and purging logs, and will be recorded daily.

f. The Pellet Mill Purging Log consists of the following:
   - Pellet Mill number,
   - Date,
   - Material use for cleaning (corn meal),
   - Quantity used,
   - Disposition (sample: corn meal was disposed at the dumpster),
   - And name of the person doing the cleaning.

   See the Pellet Mill Purging Log)

g. Also, it gets purged when any part breaks inside the pellet mill.

h. The pellet mill's components and cool tank must be cleaned using pressurized air to free any dust, dirt or debris on a scheduled basis or as needed. *(See the fertilizer plant's Sanitation Standard Operating Procedure)*

i. Rollers are to be changed as needed.

j. Die plate is to be changed as needed.

Caution – Wear Safety Glasses, Dust Mask, and Ear Plugs (Personal Protective Equipment) while using pressurized air

4.15. Rotary Dryer Cleaning Procedures

a. At the end of the day, run the product completely out. This process with the burner on will get it cleaned and sanitized.

b. The Rotary Dryer has it is own cleaning log, and will be recorded daily.

c. The Rotary Dryer Daily Cleaning Log consists of the following:
   - Date,
   - Comments,
   - And the name of the person doing the cleaning.

   See the Rotary Dryer Daily Cleaning Log on Page 36)

d. The rotary dryer and components must be cleaned using a broom air to free any dust, dirt or debris daily. *(See the fertilizer plant's HACCP Plan Sanitation Standard Operating Procedure)*

e. *Steam clean the conveyors daily*

Caution – Wear Safety Glasses, Dust Mask, and Ear Plugs (Personal Protective Equipment) while using pressurized air

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4.16. Equipment Cleaning Procedures

These procedures apply to equipment used for organic and non-organic chicken manure fertilizer.
Equipment must be cleaned between use in non-organic and organic production to ensure that no commingling or contamination of certified products occur.

The equipment cleaning procedures are as follow:
The cleaning methods for equipment used for organic manure is:

a. A water pressure washer will be used first to rinse the debris off the equipment,
b. Bleach water will be used second for washing,
c. Clean water will be used for the final rinse, and
d. The equipment cleaning will be *recorded.

The cleaning methods for organic transportation units are:

a. Sweeping,
b. Air blown, or
c. Washing:
    - Rinse with water the debris
    - Bleach water, and
    - Clean water for the final rinse.
d. Steam cleaned
e. The cleaning will be *recorded.

The cleaning method for the Fertilizer plant equipment is:

a. Steam will be used to clean and sanitize
b. The equipment cleaning will be *recorded.

The cleaning methods for the pellet mills are:

a. Air blown,
b. Steam and
c. Purged – to expel organic pellets from the pellet mill die, or to expel non-organic pellets prior to processing organic pellets.

All vehicles and semi-trailers tires must be washed with Bleach water
Note – All personnel must use Personal Protective Equipment while cleaning the equipment.
**(See the fertilizer plant HACCP Plan's Equipment Cleaning Log and the Cleaning Schedules)*

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4.17. Sanitation procedures

See SSOP tab

4.18. Customer Complaint Procedures

See SOP tab

4.19. Product Hold and Withdrawal Procedure

See SOP tab

4.20. Segregation, Control and Disposition of Hold Product

The Fertilizer Plant HACCP Plan contains the Segregation, Control and Disposition of Hold Product

5. Pest Control Management

See IPM plan

6. Employee Training

Employees at the fertilizer plant handling and manufacturing organic fertilizer will be trained and demonstrate appropriate knowledge and skills regarding the requirements of the NOP 7 CFR 205 and the HACCP plan. Employees will be active participants in the implementation, training, and continuous evaluation and improvements of all aspects of this Organic System Plan and the HACCP plan.

The goal of our training program is to ensure that all employees understand and follow the Organic System and HACCP plans and control system associated with organic fertilizer production and handling, and that they are capable of performing the steps necessary to follow the system.

1) Employees scheduled for any training will attend such training.
2) New employees will be provided orientation training and will be furnished information covering the organic system plan, HACCP plan and the safety and health program. The orientation training must be provided prior to the employee's exposure to the work environment.
3) Training sessions will be conducted to provide information on new equipment, new procedures, and refresher or remedial training in specific areas.

Our training program covers the following:

- Equipment cleaning
- Organic and non-organic signage identification
- Organic raw manure handling
- Non-organic conventional compost production and handling
- Organic standards to prevent cross-contamination and commingling
- Pellet mill die purging procedures
- Rotary dryer cleaning procedures
- Storage practices
- HACCP training
- Safety and Health training

Employees training will be documented in the employees' records and in the employee's training roster log. *(See the Employee's Training Attendance Log on page 40)*

7. Recordkeeping

a. All records concerning the production and handling of organic fertilizer will be maintained by this organization.

b. Records will fully disclose all activities and transactions by this operation.

c. Records will be maintained by this operation for five (5) years.

d. Records will be available for inspection and copying during normal business hours by authorized representatives of the Administrative assistant, the applicable State program's governing State officials, and the certifying agent.

The following logs are kept with regard to our operation:

- Driver's Daily Load Count logs will be attached with the Fertilizer Processing Log
- Windrow Turning Logs
- Dehydrated Chicken Manure Screening Operator' Daily Logs
- Fertilizer Processing Logs
- Pellet Mill & Drying Oven Temperature Logs
- Organic Pellet Processing Daily Inventory logs
- Organic Heat Treated Chicken Manure Processing Daily Inventory Log
- Laboratory Analysis Reports
- Clean Transport Affidavits
- Standard Procedures for Loading, Transporting and Delivering of the Farms Choice Products
- Fertilizer Loading Records
- Finish Products Daily Inventory logs
- Finished Product Individual Lot Inventory
- Incoming Material Records
- Individual Materials Daily Inventory Logs
- Pellet Mill Purging and Cleaning Logs
- Rotary Dryer Daily Cleaning Log
- Equipment Cleaning Logs
- Hold Product Logs
- Pest Control Logs
- Employee's Training Logs
- HACCP plan logs

The Organic Food Safety Analyst and Farms Choice Manager will ensure that the records maintained are up to date and sufficiently document the practices, procedures, and inputs used by the operation.

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8. Organic Control Points

The Organic Control Points are the points where contamination and commingling could occur resulting in a loss of organic integrity.

The Organic Control Points are as follow:

Organic Control Points

Critical Control Point:	Preventive Action:	Corrective Action
Raw chicken manure derived from Arlington South Lay Houses 1 through 7 is used for non-organic.	a. These lay houses have Non-Organic signs posted on each end of the house. b. Yucca is used under the houses to control ammonia. c. The manure from these houses will be transported to the non-organic compost area only. d. Equipment assigned to non-organic will be use. d. Employee training.	If at any time a load of manure coming from these houses is transported to the fertilizer plant organic windrows sites by mistake. The entire windrow will be removed and transported to the non-organic compost windrows. The equipment will be clean after. **(6.18)** This event will be recorded on the *corrective action log...
Raw chicken manure derived from Arlington South Lay Houses 8 through 12 is use for organic fertilizer.	a. Only assigned trailers for hauling organic raw chicken manure will be use. b. The raw chicken manure will be transported to the fertilizer plant windrow sites only. c. Employee training.	If at any time equipment that is used for non-organic only comes in contact with the raw manure from these houses, the manure will be diverted to the non-organic compost windrows. This event will be recorded on the *corrective action log.
Pellet Mills Number 1 and Drying oven at pellet mill number 2 must produce a product at a temperature equal to or greater than 165° F.	*a. A temperature log and a chart recorder are used to monitor the temperature throughout the day.* *b. Employee training.*	*If at any time during the milling process the temperature drops below 165° F., the operator will troubleshoot the problem and make the necessary repairs and adjustments.* *This event will be recorded on the *corrective action log.*

The Rotary Dryer must produce a product at a temperature equal to or greater than 165° F.	a. A temperature log and a chart recorder are used to monitor the temperature throughout the day. b. Employee training.	If at any time during the heat treatment process the temperature drops below 165° F., the operator will troubleshoot the problem and make the necessary repairs and adjustments. This event will be recorded on the *corrective action log.
Totes with organic pellets or heat treated chicken manure	a. Every organic product will be stored by lot on the storage shed, and on a separate location, to prevent commingled, inside the warehouse. b. Employee training.	If any tote with organic finish product is found mix with non-organic product, the finish product will be no longer organic. This product will be used for turf pellets. This event will be recorded on the *corrective action log.
Equipment assigned to handle organic product.	a. All equipment assigned to handle organic chicken manure products will not be used with non-organic compost. b. Employee training.	If at any time, any equipment for handling organic is used to handle non-organic compost, the equipment will be clean before it is used again with organic products. The event will be recorded on the equipment cleaning log.
Labels or Tags on totes and bags with organic products.	a. Every tote and bag with organic product will have an identification tag or a label with a lot number. b. The labels and tags will be place on each tote or bag properly. c. Employee training.	If at any time, after bad weather; especially heavy winds, the labels or tags on the totes or bags comes off. Every tote or bag will be inspected for the missing label or tag and will be re-label or tag accordingly with each lot number. A label is sent with loads. The event will be recorded on the *corrective action log.

This Fertilizer Plant produces organic product that is used for both organic and non-organic packaging, and steps are taken to prevent commingling of products.
The steps are as follow:

1. Labels are used for labeling the organic and non-organic.
2. Both products are stored at two different locations.
    - The organic product is stored in the storage shed.
    - The Non-Organic product in the warehouse.
3. The organic product that is use for non-organic products is package in 2,000 lbs., 1,000 lbs., or 500 lbs. Totes, and 20lbs or 50lbs bags.
4. The bagging operation for the 20lbs/50lbs bags is done inside the warehouse, and stored at the same place.

The following are prohibited for use in the handling of any organically produced agricultural product or ingredient labeled in accordance with subpart D of this part:

1) **Packaging materials, and storage containers, or bins that contain a synthetic fungicide, preservative, or fumigant;**
2) **The use or reuse of any bag or container that has been in contact with any substance in such a manner as to compromise the organic integrity of any organically produced product or ingredient placed in those containers, unless such reusable bag or container has been thoroughly cleaned and possess no risk of contact of the organically produced product or ingredient with the substance used.**

**See the Commingling or Cross-Contamination Corrective Actions Log*

9. Security Program

Rick Teal (602)-722-0412

- Rick Teal is responsible for reviewing facility procedures, physical facility processes, shipping and distribution systems and identifying relevant areas where the plant may be vulnerable to potential sabotage or terrorist attack. These steps include but are not limited to:
    1) Restricting access to the facility.
    2) Lock and key access to the main facility and hazardous compounds.
    3) Routinely inspect of facilities.
    4) Requiring special access privileges for employees.
    5) Implementing and documenting a training program for employees on security measures.
    6) Securing all loads with a seal, assigning a seal to the bill of lading and on all bulk loads the bag will be sealed with cable tie and ensuring that product cannot be adulterated in transit. It is the responsibility of the transportation department to ensure that carries understands that the seals will be kept intact until product reaches the destination. Any seal that is broken or does not match the bill of lading must be communicated to the Compliance Department and the Farms Choice Manager to initiate corrective action.
    7) Restricting access to production and processing areas.
    8) Insuring that supply sources are approved and all incoming raw materials and packaging are inspected for signs of tampering.

Sam Seagren (623) 872-2311

- Sam Seagren is responsible for pre-employment screening where practical and maintaining records of work references, addresses, phone numbers and verification of immigration status.

11. Operator Agreement

- This fertilizer plant will comply with the Act and applicable organic production and handling regulations of this part;

- Establish, implement, and update annually an organic system plan that is to be submitted to an accredited certifying agent (ACA) as provide for in 7 CFR 205.200;

- Permit on-site inspections with complete access to the production operation, including noncertified production areas, structures, and offices by the certifying agent as provided for in 7 CFR 205.403;

- Will maintain all records applicable to the organic operation for not less than five (5) years beyond their creation and allow authorized representatives of the secretary of Agriculture, the applicable State organic program's governing State official, and the certifying agent access to such records during normal business hours for review and copying to determine compliance with the Act and the regulations in this part, as provided for in 7 CFR 205.104;

- Submit the applicable fees charged by the certifying agent; and

- Immediately notify the certifying agent concerning any:
    1. Application, including drift, of a prohibited substance to any production unit, site, facility, or product that is part of an operation; and

    2. Change in a certified operation or any portion of a certified operation that may affect its compliance with the Act and the regulations in this part.

I have reviewed this Operator Agreement and understand my responsibilities herein.

Billy Hickman (V.P. of Operations) _____Billy Hickman_____

Rick Teal (Operations Manager) _____Rick Teal_____

Kevin Whitehurst (Food Safety Analyst) _____Kevin Whitehurst_____

Organic System Plan Review Log

Date	Subject	Checked By	Notes
7-25-2013	Risk Assessment and HACCP Plan implemented	Shari Yeatts	Hazard analysis and critical control points, or HACCP risk assessment performed and delivered as a systematic preventive approach to food safety. Risk Assessment took place to look for physical, chemical, and biological hazards in production processes that can cause the finished product to be unsafe, and designs measurements to reduce these risks to a safe level.
8-14-2013	Up-dated the Organic System plan	Frank Ruiz	
3-17-2014	Up-dated the Organic System plan	Frank Ruiz	
7-10-2014	Up-dated the Organic System Plan	Frank G. Ruiz	
5-28-2015	Updated the Organic System Plan	Kevin Whitehurst	Fernando Hoenig's name was removed. Corrected spelling mistakes and updated procedures
11-10-2015	Updated the Organic System Plan	Kevin Whitehurst	Changed the Heat Treated procedures to reflect the new system.
4-21-2016	Reviewed the OSP	Kevin Whitehurst, Jim Marshall, Walter Smith, Richard Teal, and Shari Yeatts	Removed people who do not work here anymore and corrected processes
8-24-2016	Revised the OSP	Kevin Whitehurst	Updated names and removed logs(to be placed in another file)

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