



BIGHANNA[®] composter



FOOD WASTE REDUCTION & COMPOSTING PROGRAM DEVELOPED FOR NOBLE CORRECTIONAL INSTITUTION - CALDWELL, OHIO.

Goal:

- ✓ Move NCI towards Zero Food Waste.
- ✓ Reduce its overall cost of solid waste disposal to nothing.
- ✓ Side benefits will be 1) job training opportunity for inmates 2) creation of additional revenue through compost sale or use by NCI and other state facilities.
- ✓ Use of food waste at DRC landscape/nursery training programs, garden / landscaping and shipment from NCI to other state facilities will reduce fertilizer purchasing costs.

Starting point:

- ✓ Population per January 2013: 2,499
- ✓ Up to 1.5 lbs food waste per person per day
- ✓ About 676 ton food waste/year
- ✓ Landfilled at a cost in excess of \$54,535/year

ROI and CO₂:

- ✓ Cost of 2 units of Big Hanna 166,000 USD
- ✓ Land fill cost per year 54,535 USD
- ✓ ROI for composters 3 years
- ✓ CO₂ Emissions avoided 1,014 tons/year





BIGHANNA[™] composter

- ✓ Somat Model 75S Close-Coupled Pulper and Hydra-Extractor
- ✓ Prison Security Package
- ✓ Capacity 1,250 lbs. per hour
- ✓ Water is recycled
- ✓ Volume reduction up to 8:1 (20% remaining used in Noble CI model)



Somat Model 75S Close-Coupled Pulper and Hydra-Extractor

- ✓ Big Hanna model T240 – two units
- ✓ Prison Security Package
- ✓ Automated, in-vessel, aerobic composting
- ✓ Meat, fish & dairy solids (“Class II”)
- ✓ Daily feeding
- ✓ Passage time 8 weeks – produces mature, stable compost
- ✓ Four temperature probes with data logging – monitoring to ensure pathogen free compost
- ✓ Mirrored for facilitated operation
- ✓ Hopper fed inlet with auger screw
- ✓ Biofilter – built in Noble CI workshop
- ✓ Nominal per unit capacity 2,600 lbs. per week (2,000 lbs. used in Noble CI model, with pulped food waste)
- ✓ Energy consumption ~558 kWh per unit per year (indoor)



Two units of Big Hanna Composter model T240.



Compost produced at Noble CI.



Biofilters.

In 2014 the new model T480 is introduced with twice the capacity of a T240.

