Vermicomposting Kitchen Waste

“It’s magic”

Louise Devine
What it is and what it does

- Vermicompost = worm castings or worm poop
- Quickly converts kitchen waste into high quality compost
  - Vegetarian food
  - Biodegradable paper products (carbon source)
- Nutrient Value - Plants grow twice as tall than with commercial potting soil
- Suitable for most any life style
- Can even be scaled-up to “institutional” level
Vermicomposting – How To Do It

- Bin – wooden, plastic or metal with tight-fitting lid
  - Two bins 2’ x 3’ x 1’ – are good for 2-3 person household
  - With drainage holes in bottom (optional) and air vents on top (optional) and sides
  - Bottom drainage holes should be ¼ inch dia.
  - Side air vents 1/8 inch dia.
Vermicomposting – How to do it

- Add moist drained bedding to worm bin
  - 1” – 2” strips of newspaper/cardboard/leaves/peat moss/sawdust
- Fill bin with bedding
- Start with 2 lbs of redworms/lb daily scraps
  - *Eisenia foetida* or *Eisenia hortensis*
- Bury food scraps under 4 – 6” bedding
  - Rotate burial around bin to prevent overloading
- Harvest vermicompost in 3 – 6 months
Worm Husbandry

- Inside or outside?
- Feeding rates:
  - ½ to 1 times their body weight a day
  - Twice their body weight in a week
- Moisture control
  - Prevents dehydration
  - Aids respiration
  - Aids mobility
Husbandry continued

- Controlling wanderlust
  - Dim light
- Cohabitors include:
  - Fruit flies, mites, black soldier flies
- You cannot over feed, but anaerobic fermentation produces toxic conditions
- Remove finished compost
More Husbandry

- What to feed worms –
  - Vegetable scraps, breads and grains
  - Fruit rinds and peels
  - Tea bags, coffee grounds, coffee filters, etc.
- What not to feed worms –
  - Meat, fish, cheese or butter
  - Greasy, oily foods
  - Animal wastes
- Establish an equilibrium
Harvesting finished vermicompost

- “Wind-row” in lighted area
- “Tickle” surface-compost off of the pile
- Store in a ventilated pot
- Keep moist to maintain bioactivity
- Return the worms to the bin…
Using Vermicompost

- Too sticky/gummy for direct use
- Mix with vermiculite or other material 50:50
  - Can be used as seed-starting mix
- Place directly in planting holes
- Make a vermicompost tea to water plants
- Vermicompost has growth promoting factors in addition to plant nutrients; NPK etc.
Books

Handout and Discussion

Links