

## Gathering Summary: Getting Ready to Garden with MonaRae Tuhy & Don Bates , March 21, 2012

Summary by Catherine Haug  
(seedling photo, right, by D. Bates)



### Introduction

This was a fun and inspiring evening with MonaRae Tuhy and Don Bates, on seed starting and related topics. Stephanie offered a great dessert: Berry Crisp with Whipped Cream.

For the most part our presenters followed MonaRae's main handout: [Seed Starting 2012 by MonaRae](#). Don added his bits of wisdom from his vast experience where appropriate (see [Don's Seed Starting Notes & Photos](#)).

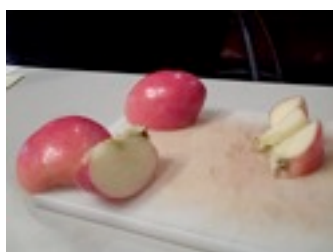
The following additional handouts were provided:

- [Words to Grow By](#): seed catalogue & growers' vocabulary, by MonaRae.
- [Don's Planting/Transplanting Dates in Kalispell MT](#) by Don Bates. These dates apply to his garden in Kalispell; local climates within the valley differ greatly, so his dates may not be appropriate where you live.

MonaRae filled a table with MontGuides on gardening topics (from MSU Extension service), and another table with seed catalogues.

In this article, I will only add what was discussed that was not included in the handouts, including audience discussion.

### Topics not in handouts



#### Apple Illustration

(Photo of cut-up apple, left, by S. Janover)

MonaRae used a nice, red apple to illustrate the earth's water. She noted that a similar illustration could be made for earth's soil.

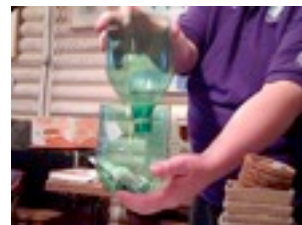
- The whole apple represents all of the earth's the water;
- Don cut it in half, then half again, and again, and again until it was just a tiny sliver: Only 1/32 of the earth's water is useable, arable, growable.
- Just the skin on this tiny is all that is potable water for drinking or gardening.
- The rest is ocean salt water, polar ice caps, glaciers, too hot, in areas where you cannot grow food, polluted, and such.

## Seed-Starting Containers

See handouts for most of the discussion on this topic. The following is extra info:

You don't need to go out and buy these - there are a lot of containers you can repurpose for this use - basically just about anything you can punch holes in the bottom, will work. She brought some examples & offered two demonstrations:

- ▶ turning a 2-liter plastic pop bottle into a self-watering pot (*photo, right, by S. Janover*);
- ▶ turning newspaper into a compostable pot by wrapping & folding around a pop bottle (*no photo available*).



Or you can buy pots like MonaRae's samples of compostable pots and peat pellets (*photo, left, by S. Janover*).

Disinfect used pots from damping-off & other diseases, by mixing 1 part Clorox bleach in 9 parts water.

Don uses only 2 sizes of commercial plastic pots (which he reuses each year after disinfecting them with the Clorox solution mentioned above): the standard 6-pack, and 4" pot for up-potting.

Both recommend seed trays. Buy good, better-weight ones that will last for years.

## Potting Mix vs Soil

See handouts for most of the discussion on this topic. The following is extra info:

(*photo of potting mix ingredients, right, by S. Janover*)

MonaRae brought a bucket of her own potting mix:  $\frac{1}{3}$  each peat, compost and perlite/vermiculite. Her peat comes from Peatco in Big Arm (comes from Lake Mary Ronan) - see [Resources](#). She demonstrated how she readies it for seeds:



1. Wet the mix the day before, which allows it to warm to room temperature. You want it slightly damp, not dripping.
2. Fill to top, then tap down to about  $\frac{2}{3}$  full, to eliminate air pockets. Don't press down, to avoid compaction.

Don uses 50% compost, 50% vermiculite starting mix. He doesn't sterilize compost, and hasn't had problems. Good soil has important micro-organisms that would be killed by sterilization. His compost cooks (cures) outdoors on its own; then he brings his cured compost into his basement for the winter, and uses from this for seed starting.

For onion family members, MonaRae advises adding coarse builders' sand to the mix.

**Q:** What to do if vermi-compost gets sprouts?

**A:** Kill seeds by heating to 150° F for 1 hours in an outdoor oven.

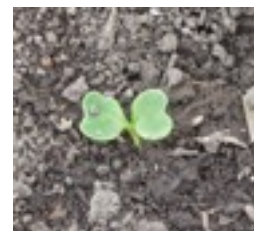
**Q:** Where can I find instructions for the Milestone test (to determine if soil is contaminated with this herbicide)?

**A:** See article by Don Bates on The EssentialList: [Test for Hidden Poisons in Compost, Manure, or Wheat Straw](#).

## Fertilization

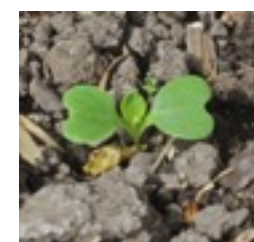
See handouts for most of the discussion on this topic. The following is extra info:

Add fertilizer only after the first true leaves appear. Don's photos, right, illustrate the difference between a cotyledon (*top*) and true leaves (*bottom*).



**Q:** Bat guano?

**A:** Yes, this can be used, but llama and rabbit manure is best. [Cat's note: the Shelts in Kalispell raise rabbits and may sell their manure; contact 257-6808].



## Seeds

See handouts for most of the discussion on this topic. The following is extra info:

Don advises:

- Take good care of your seeds and store them in a cool, dry place (not in kitchen unless in refrigerator).
- Do a rag-doll test to see how many sprout: wrap seeds in dampened paper towel, then put into plastic bag. Set in a warm, dark spot until they sprout, 2 - 3 days.
- Buy from northern growers - seeds adapt to where they are raised.
- Judy Fisher of Fisher's Garden Store in Belgrade MT has excellent organic seeds. Contact (406) 388-6052.

See [Words to Grow By](#), by MonaRae, for discussion of hybrid vs open pollinators.

Learn to read the code in catalogues, etc. For example, "will hold in field" is good. You want what commercial growers don't want.

Read seed packets for special instructions and germination rates.

## Transplanting

See handouts for most of the discussion on this topic. The following is extra info:

Don provided special instructions for transplanting onion family seedlings (*photo, right, by S. Janover*). These are very tiny and fragile. He sows them thickly; when ready to transplant, immerse in water, massage to separate the seedling roots, then plant in a trench.





## Heat & Light

*(Photo of heat mat by S. Janover)*

See handouts for most of the discussion on this topic. The following is extra info:

Use shop lights equipped with two grow lights; one each, warm and cool tube for full-spectrum. Do not use incandescent - they produce too much heat. Light 15 - 18 hours/day. Position lights low, about 4 - 6" above the plants; raise the light as the seedlings get taller.

## Potting-up

See handouts for most of the discussion on this topic. The following is extra info:

Don uses this technique for tomatoes and peppers, but not much else. He cautions:

- ▶ Don't let your young plants get root-bound;
- ▶ Don't grab them by the stem. Handle root ball with soil.

## Hardening off

See handouts for most of the discussion on this topic. The following is extra info:

No direct sun for 4 - 5 days;

Place empty toilet paper rolls (the cardboard center) over small plants as needed for protection.

## Transplanting

See handouts for most of the discussion on this topic. The following is extra info:

Shock happens from root damage, so take care when handling.

Tomatoes root off the stem, so put them a little lower into ground.

Don't mulch until soil is warm.

Don't put into cold soil. Should be 45° - 50° F for most plants, but 55° F+ for tomatoes.

Use "trench-planting" for tomatoes. MonaRae showed a graphic but it is not available for this summary.

## Journaling & Labeling

Keep a journal. Note weather and other details about seedlings, transplants, fertilization, harvests, and seed-collecting.

Label everything.

## Resources

- [MSU Extension: Yard and Garden publications](http://www.msuextension.org/category.cfm?Cid=5)  
([www.msuextension.org/category.cfm?Cid=5](http://www.msuextension.org/category.cfm?Cid=5))
- [Index of MontGuides for Yard & Garden](http://www.msuextension.org/store/Departments/Yard-and-Garden.aspx) ([www.msuextension.org/store/Departments/Yard-and-Garden.aspx](http://www.msuextension.org/store/Departments/Yard-and-Garden.aspx)) (this link has been added to the 'Gardening & Ag links' on our home page)
- [The EssentialList: Test for Hidden Poisons in Compost, Manure, or Wheat Straw](http://essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/)  
([essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/](http://essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/))
- Peatco in Big Arm - (406) 849-5729; Hwy 93, Mile Marker 72; Big Arm, MT, 59910

## Handouts

- [Seed Starting 2012 by MonaRae](http://essentialstuff.org/wp-content/uploads/2012/02/2012SeedStarting_MTuhy_EsL.pdf)  
([essentialstuff.org/wp-content/uploads/2012/02/2012SeedStarting\\_MTuhy\\_EsL.pdf](http://essentialstuff.org/wp-content/uploads/2012/02/2012SeedStarting_MTuhy_EsL.pdf))
- [Don's Seed Starting Notes & Photos](http://essentialstuff.org/wp-content/uploads/2012/02/Seed-starting-notes_DBates2.pdf)  
([essentialstuff.org/wp-content/uploads/2012/02/Seed-starting-notes\\_DBates2.pdf](http://essentialstuff.org/wp-content/uploads/2012/02/Seed-starting-notes_DBates2.pdf))
- [Words to Grow By](http://essentialstuff.org/wp-content/uploads/2012/02/2012SeedVocab_MTuhy_EsL.pdf)  
([essentialstuff.org/wp-content/uploads/2012/02/2012SeedVocab\\_MTuhy\\_EsL.pdf](http://essentialstuff.org/wp-content/uploads/2012/02/2012SeedVocab_MTuhy_EsL.pdf))
- [Don's Planting/Transplanting Dates in Kalispell MT](http://essentialstuff.org/wp-content/uploads/2012/02/planting-Dates_DBates2.pdf)  
([essentialstuff.org/wp-content/uploads/2012/02/planting-Dates\\_DBates2.pdf](http://essentialstuff.org/wp-content/uploads/2012/02/planting-Dates_DBates2.pdf))

## Summaries of previous events on gardening

- [Gathering Summary: Seed Starting Indoors; Container Gardening](http://essentialstuff.org/wp-content/uploads/2009/02/seedstart-contgarden_ds-sj_012909_cmprs.pdf)  
([essentialstuff.org/wp-content/uploads/2009/02/seedstart-contgarden\\_ds-sj\\_012909\\_cmprs.pdf](http://essentialstuff.org/wp-content/uploads/2009/02/seedstart-contgarden_ds-sj_012909_cmprs.pdf))
- [Gathering Summary: Gardening in NW Montana, by Julian Cunningham, 022011](http://essentialstuff.org/index.php/2011/05/15/Cat/gathering-summary-gardening-nw-montana-j-cunningham-042011/)  
([essentialstuff.org/index.php/2011/05/15/Cat/gathering-summary-gardening-nw-montana-j-cunningham-042011/](http://essentialstuff.org/index.php/2011/05/15/Cat/gathering-summary-gardening-nw-montana-j-cunningham-042011/))
- [Gathering Summary: Garden Season Extenders, by Don Bates, March 23, 2011](http://essentialstuff.org/index.php/2011/04/02/Cat/gathering-summary-garden-season-extenders-by-don-bates-032311/)  
([essentialstuff.org/index.php/2011/04/02/Cat/gathering-summary-garden-season-extenders-by-don-bates-032311/](http://essentialstuff.org/index.php/2011/04/02/Cat/gathering-summary-garden-season-extenders-by-don-bates-032311/))

## Other ESP articles

- [Test for Hidden Poisons in Compost, Manure, or Wheat Straw](http://essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/)  
([essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/](http://essentialstuff.org/index.php/2011/07/12/Cat/test-for-hidden-poisons-in-compost-manure-wheat-straw/))