

Workshop Title: Growing and Processing Grain on a Home-Scale

Speaker(s) & their title(s): Will Bonsall

Self-declared 'Hippie Homesteader', Author of 'Essential Guide to Radical Self-Reliant Gardening', and founder of the 'Scattered seed Project'. For more information on this project check out: <http://www.fedcoseeds.com/moose/scatterseed.htm>.

Executive Summary:

Will Bonsall shares stories of his homesteading lifestyle with his wife Molly, and encourages young farmers to be familiar with all facets of small-scale self-sufficiency. In a show and tell fashion, Bonsall presented his recommendations for small grain varieties, planting dates, appropriately sized non-mechanized equipment, and harvesting techniques suitable for small-scale home gardeners.

Detailed Notes:

Grain biology

In a brief description of biological traits, Bonsall provided examples of grain varieties he would recommend for growing at home. Common oats and barley have hulls or glumes that must be removed (in most cases mechanically), which makes these grains more difficult to process for small-scale growers. Hullless or naked oats are easier to remove from their hulls, which is easier for home growers, with less mechanized equipment. Generally there are two varieties of wheat commonly grown. A hard red wheat is most often used for bread flour as it contains more gluten, whereas a soft white wheat has less gluten and is more often used for pastry.

Bonsall also explains that grains will differ in their growth patterns if they are a spring or winter variety. For example:

Spring wheat- planted early in spring so that it will have a certain number of leaves before it bolts to make seed. If they are bolting without enough plant mass they will not produce as much seed. People grow spring wheat more often in the Maritimes due to freeze and thaw tendencies throughout the winter.

Winter wheat – planted in late September-October, the plant starts to grow, but goes dormant through winter. It continues its growth again in the next spring. People do not plant winter wheat as often in colder climates to avoid winterkill, however it does yield better.

Note/Story - Will prefers not to leave any soil bare, however he found that mulching between plants presented certain challenges. He discovered that hardwood leaves could be put through a shredder and spread easily between plants, as an ideal mulch. Will explained that leaves are readily available, and 'eco efficient' calling them an 'earth

**2015 ACORN Conference & Trade Show
Delta Prince Edward Hotel, Charlottetown, PE**

blessing' helping suppress weeds and create a nutrient rich soil.

Will's wife Molly suggested he try mulching his grain crops with the shredded leaf mulch. He found this method worked so well it has been possible to grow winter grains on his property because it decreases the effects of freeze and thaw on his crop. Will now claims that mulching grains with shredded leaves was 'HIS' best idea ever.

Will usually plants his grain crops in 6 by 40 foot plots, providing a portion of whole grain flour for him and his wife each year.

Recommended grain varieties for maritime growers:

Will suggests that some grain varieties available from major companies might not be adapted to our climate so a grain variety should be sourced from a similar climate. A favourite example of his is 'Sirvinta' from Estonia.

Spring wheat:

- Plant grain crops in terraces.
- Using an earthway seeder works better than broadcasting.
- Will marks his rows 8 inches apart, and runs string to mark his row adjacent to where he is running his seeder.
- He uses a seeding plate that is made for swiss chard seed, using tape to close every second hole.
- Plants very early in spring
- Once leaves are growing, mulch with shredded leaves (confetti)
- Allow it to grow, and observe growth stages
- Milk stage – can be eaten like boiled sweet corn, and kernels will squish between fingers
- Soft dough stage- kernels will dent with fingernail
- Hard dough stage –golden yellow kernels are harvested at this stage. A curved hand tool/knife works well for harvesting. Cut stalk close to the ground and lay bunches on ground in rows.
- Use a long piece of straw to make a ribbon, and bind sheaths of wheat into bundles.
- Lay bundles into a 'stook' or haystack to cure into the flint stage. This provides beautiful whole grain wheat that is far superior in quality to grocery store versions harvested at the flint stage with combines.

Buckwheat:

- Planted near July 4th, is not frost tolerant, but is ideal if it is ripened and its growth is stopped in the fall by frost.
- Hulless buckwheat is not available. Kasha is only possible with large equipment.
- There are two varieties to choose from. Will recommends planting Japanese buckwheat for food, and tartary buckwheat for green manure.

Amaranth:

'Opopeo' variety is high yielding and can be used as a trellis for pole beans.

**2015 ACORN Conference & Trade Show
Delta Prince Edward Hotel, Charlottetown, PE**

To keep the grain, harvest and hang the stalks from the rafters to dry. Lay stalks on the floor, and step on seed pods to break grain out. Winnow chaff from the grains by fanning them, or blowing air across the pile.

Quinoa:

Is typically grown in Peru, and imported. It will also grow in the Maritimes. The plant is related to pigweed, and can look similar so Will recommends starting plants early indoors so they can be distinguished from the common weed. Hang from the rafters until they are dry. Lay stalks on a floor, and step on seedpods to break them open. Winnow (blow) chaff off the grains, several times.

Naked oats or naked barley:

Oats can be rolled flat (rolled oats) or made into oat flour. Sometimes the hulls will stay attached. Fill a bucket of water, and put handfuls of grain into the water. Grain with hulls will float to the top. The grain will need to be dried again.

Rice:

Can be grown in the Maritimes with a little extra effort. 'Duborskian' is a Russian variety with marginal maturity, but if plants are started in a greenhouse, the plants will have an early start.