

Sunny Gardener's Notes on Growing Edamame according to G.A.O.P. Epic Gardens.com

Prescription for Growing Edamame according to GAOP¹

When to Plant: Allow soils to thoroughly warm up to 55-60 degrees F prior to planting. Edamame seed do not germinate in cool soils so wait to plant for best success.

Planting Depth: 1 inch

Seed Spacing: 8-10" apart within rows, depending on variety

Row Spacing: 30"-36" apart. Edamame grows better and sets more bean pods when they have plenty of space. However, many sources recommend planting seeds more closely.

Fertility: Rich, composted garden soil produces good growth. Soybeans are legumes and make much of the nitrogen they need. Your soil test will tell whether Potassium, Phosphorus or other elements are needed. If beans have not been grown on the plot before, an inoculant may improve production.

Pest Control: Edamame is considered a healthy food, and a superfood by some. Because of this, and the fact that they are harvested as green pods earlier than dry soybeans, approved organic methods of weed and insect control are essential to producing an acceptable safe food. Therefore, we offer the following suggestions.

Weed Control:

1. Plant the Edamame Seed and note when they sprout.
2. Cultivate in the aisles once, or twice if it gets away from you.
3. When the second leaves are formed, spread Corn Gluten Meal², at the prescribed rate. CGM is a pre-emergent herbicide and will suppress the sprouting of seeds that surfaced during cultivation.
4. When the plants form a canopy, the work is mostly over. If the canopy is slow to cover the aisles (perhaps due to cool rainy weather) then consider a layer of mulch, something biodegradable such as chicken litter, wood chips or paper topped with straw.

Insect and Predator Control:

1. Monitor daily, or at least several times per week, for insect presence so that you remain aware of the populations before damage is evident.
2. Identify insects that you see and prepare to fight them IF NEEDED.
3. Use a resource such as a good field guide or online guide. One of my favorites is a Rodale book entitled *The Organic Gardener's Handbook of Natural Insect and Disease Control* because it has color photos and also covers acceptable materials for control of the identified insect. There are numerous web sources, including http://www.omri.org/OMRI_links.html, and <http://afsic.nal.usda.gov> and <http://www.drmcbug.com/>. Your Cooperative Extension Service is a vital connection to a vast knowledge base, and your tax dollars at work in the best way.
4. Remain cautious and conservative in your approach. Locate the product you selected; have it on hand if you want, but don't be in a hurry to douse the garden with powerful NOP-accepted substances like rotenone or pyrethrin. That could kill beneficials that may be attacking the very critter that is bugging you.

1 Generally Accepted Organic Practices

2 Corn Gluten Meal is a pre-emergent herbicide that also adds nitrogen to the soil.

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5. Watch the battle. For example, if aphid skins are attached to the underside of leaves, it may well mean that Lacewings or Ladybugs are already on the job.

Considerations

1. Seeds are Fragile and Alive. Remember to handle seed with care. Store in a cool dry place until planting and avoid seed cracking by using the correct size seed plate (corn plates work well). Freeze in a moisture proof package for successive years.
2. Inoculation: If planting edamame soybeans in land not previously planted to soybeans, consider inoculating your soybeans to ensure that they can produce their own nitrogen.
3. Extending Your Harvest Extend your edamame harvest by planting varieties of different maturities or by planting the same variety in weekly successions for 4-6 weeks. Epic Gardens has several varieties from different maturity groups.
 - a. Midatlantic: Sow seeds of MG V varieties when the soils have warmed to 55 degrees F. Plant more seeds of all varieties at weekly intervals for 4-6 weeks. This will extend the harvest, making fresh edamame available for a longer period. Freeze extra edamame for off-season enjoyment
 - b. South: Sow seeds of MG VI the first of April in crop tunnels or in late April outside of crop tunnels, followed by early/midseason MG IV or V in May. Next, plant midseason and main season in mid May/early June followed by late season in early June.

Harvest

1. Harvest edamame when the beans in the pod are 80-90% expanded or when the leaves have changed from bright green to a slight yellowish-green color.
2. The best practice is to cut the plants at soil level in the early morning, lay them on sheets or tarps and hustle them into the shade, loosely wrapping them in the shroud to keep them moist and cool.
3. Handpick those pods with at least two beans per pod and select pods which are bright green, maybe with a hint of yellow. Avoid mixing in blemished pods; however, if you have the handworkers, save them to be used as shelled beans. Toss them on a blower table to remove dirt. Wash them as a last resort, or just before cooking them.
4. Pods can be refrigerated for 7-10 days. To freeze for longer storage, blanch them for 2-3 minutes in boiling water and freeze them in a single layer. After pods are frozen, store them in plastic bags in the freezer.

Planning for the next Season

So that's the first year. Ideally, this program will be extended and, after harvesting the vegetables, the grower will plant cover crops to enrich and protect the soil. In spring the crop will be cut and left on the ground to provide coverage to prevent weeds from growing. The next crop will be planted in the stubble.

This process lessens labor and inputs, ranging from soil amendments to fuel for driving the tractor and human hands pulling weeds. Tracking the cycle to assure good rotation of crops will further enhance the system, as will farmscaping. The grant proposal will describe these processes in detail.

Please consider advising and working on this project. The benefits will be far reaching and long lasting, as we refine the protocol for growing vegetables according to Generally Accepted Organic Practices and people become aware of the advantages and possibilities.