Horseradish Production from Roots

HORserADISH (Armoracia rusticana)

You have received healthy horseradish root cuttings. Please plant as soon as possible. If you are unable to plant upon arrival, remove any bands/ties around the roots and wrap them in slightly damp sphagnum moss or newspaper and refrigerate.

Horseradish is a widely adapted, hardy perennial plant that has been cultivated for thousands of years. The pungent roots are used for sauces, condiments, and in traditional Passover Seder plates.


SITE SELECTION AND SOIL PREPARATION:
Horseradish grows best in deep fertile soil, with a pH of 6.2–6.8. Soils high in organic matter will yield the highest quality roots. If planted in hard, shallow, or stony soils roots tend to be malformed with reduced yields. The soil should be worked to a depth of 10 inches with generous amounts of compost or well-aged organic matter added. Using fresh manure causes excessive top growth and forked roots.

PLANTING: Root cuttings should be planted as soon as the ground can be worked in early spring. A typical root cutting should be ½–¾ inches in diameter and 8–14 inches long. Most horseradish roots will have a flat cut end and a slant cut end. The flat cut represents the top of the root section and the slant cut indicates the bottom. Set the cuttings 12 inches apart in the row at a 45° angle, top end facing up, then cover with 2–3 inches of soil. Make sure that the tops point along the rows in the same direction to facilitate field cultivation later in the season. Mounding or hilling the cuttings at planting time will make the harvest of roots in the fall more efficient.

IRRIGATION, WEED, AND INSECT CONTROL:
Horseradish benefits from consistently moist soil throughout the growing season but especially when the roots are first planted. Quality and yields will be better when irrigated during the hot periods of midsummer. Lighter soils may need more frequent irrigation, but with less water, than heavier soils. Weed control is very important early in the season while the plants are small. Once actively growing, the horseradish should out-compete most weeds. Insects are not usually a major concern, especially on the roots. Aphids and flea beetles may damage the leafy tops, but can be controlled with a pyrethrin or spinosad product. The use of row covers to exclude insects is also very effective.

LIFTING: Large, straight, primary roots (USDA Fancy and #1 grade) are the best quality and bring the highest prices. To produce these large smooth roots, “lifting” is necessary to remove the secondary roots and shoots. When the leaves reach 8–10 inches in length, gently lift the crown end of the set 1–2 inches with a spading fork or hooked rod and carefully remove the soil. Remove the secondary or side roots and shoots. Replace the set to its normal position and cover with soil. Care must be taken to not disturb the roots at the lower end of the set. This process may be repeated about 6 weeks later. If producing a wild-root or field-run crop, this process is not needed.

HARVEST: Horseradish roots develop in the early fall. For this reason, harvest should be held off until October or early November. Additionally, the quality and flavor of horseradish improves after being exposed to a frost. A one- or two-row potato harvester can be used for digging larger plantings. If manually harvesting, start by digging a trench 12–14 inches deep along one side of the row. Then, from the opposite side of the row loosen roots with a spading fork or shovel. Pull tops laterally from the soil removing entire root mass. Trim green tops to 1 inch and remove side and bottom roots, saving those that are 8 inches or longer for replanting in the spring. Harvested roots should be washed and trimmed for market or storage. Roots will keep for 10 months or more at 32–33°F/0–5°C with 90–95% relative humidity.