

### HORSERADISH (*Armoracia rusticana*)

***You have received dormant horseradish root cuttings. Open the box immediately upon receipt and plant as soon as possible. If you are unable to plant the cuttings upon their arrival, remove any bands or ties, wrap the root cuttings 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 in sauces, cheeses, condiments, and traditional Passover Seder plates.

#### LIFE CYCLE

Perennial in Zones 3–8.

#### 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", with generous amounts of compost or well-aged organic matter added. Manure that is too fresh can cause excessive top growth and forked roots.

#### PLANTING

Root cuttings should be planted as soon as the ground can be worked in early spring. Root cuttings are typically ½–¾" in diameter and 8–14" long. Most horseradish root cuttings 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" apart in the row at a 45° angle, top end facing up, then cover with 2–3" of soil. Make sure the tops point in the same direction along the rows, to facilitate field cultivation later in the season. Mounding or hilling the cuttings at planting time will facilitate harvest of roots in the fall.

#### 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 yield will be enhanced by irrigation during hot spells. 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, horseradish will outcompete most weeds. Insects are not usually a major concern, especially for the roots. Aphids and flea beetles, which can damage the leafy tops, can

be controlled with a pyrethrin or spinosad product. The use of row covers to exclude insects is also 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" in length, gently lift the crown end of the set 1–2" 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 not to 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 early fall. For this reason, harvest should be held off until October or early November. Additionally, the quality and flavor of horseradish improves with frost exposure. A one- or two-row potato harvester can be used for digging larger plantings. If manually harvesting, start by digging a trench 12–14" 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" and remove side and bottom roots, saving those that are 8" 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.