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This production summary provides an overview of parsley growing, harvesting, and post harvesting practices. There are some common practices that many large commercial growers use when producing parsley, and though there are variations in these practices, having an understanding of the most common methods used will be helpful when carrying out regulatory activities.

By the end of this summary, you will be able to:

- 1. List the top parsley producing regions in the U.S.
- 2. Describe the differences between the varieties of commercially produced parsley.
- 3. Identify the most common farming practices used in the production of parsley including the use of equipment and manual labor.



Parsley is a popular culinary herb, commercially cultivated as an annual plant in many parts of the world for its attractive and aromatic leaves. Parsley is the most widely cultivated herb in Europe, and the most used herb in the United

States. It is used as a garnish rather than a component of the diet. The oil derived from the leaves can also be used in condiments and seasonings.

There are three varieties of parsley grown in the United States:

- **1. Crispum** or curly-leaf parsley. The leaves are bright green and finely cut with toothed-leaf edge. This is the most common variety that is used as a garnish.
- **2. Tuberosum**, known as hamburg or turnip-rooted parsley. This parsley has flat leaves, but is grown for its large, edible root which is prepared as a vegetable.
- 3. Neapolitanum or Italian flat-leafed parsley. The leaves are dark green, flat, and less finely cut. This variety has a stronger flavor than curly-leaf parsley. This type of parsley is commonly used as a flavoring in sauces, soups and stews.

There are many other parsley varieties including: Banquet, Dark Moss Colored, Decorator, Deep Green, Forest Green, Improved Market Gardener, Moss Curled, and Sherwood to name a few.

The top five states producing parsley are California, New Jersey, Texas, Florida, and Hawaii. California produces over 40 percent of the parsley in the United States (Fig 1).









Fig 1 - Top Parsley Producing States in the US

GROWING

Parsley is grown as an annual crop. When preparing the field, growers will rototill the soil and create smooth raised beds.

Supplemental fertilization with nitrogen, phosphorus, and potassium is often used to condition the soil prior to planting. Where more than one harvest is desired, a second application can be made during the growing season.

Seeds are planted no deeper than one-quarter inch in 36 to 42 inch raised beds in three or four rows or in double rows. Because seeds germinate slowly and unevenly, some growers purchase starter plants, which are grown in nurseries and later transplanted. Transplants are usually spaced four to eight inches apart in 36 inch rows.

Hoeing is used to control weeds. Research has shown that highest yields can be obtained with very dense planting.

Germination ranges from 21 to 25 days. Based on environmental conditions, direct seeded plants may take from 90 to 100 days to harvest and transplants take 60 to 70 days to harvest.

Parsley is marketed continuously throughout the year as a fresh market culinary green. To do so, some growers will seed three times per year. A summer sowing is fall harvested, a fall sowing may overwinter with harvest in the spring, and spring sowings are harvested in the late spring and early summer.

Parsley is grown as a leafy green vegetable and is irrigated with overhead sprinklers or drip systems.



Germination and emergence can be a problem especially in cold, wet soils characteristic of early spring. This can be due to non-uniform seed lots or soil fungus. Often, growers will pre-treat seeds with a water soak for 24 hours prior to sowing to avoid emergence problems.



Parsley is ready to harvest when plants reach at least six inches tall. As the season progresses the plants can grow to 12 to 14 inches before being harvested. Growers will rotate fields every three to four weeks

and trim one-third or one-fourth of the plant to encourage new growth during the harvest period.



Parsley sold for the fresh market is almost exclusively hand harvested. Workers will begin by grouping a bunch of plants with one hand and slicing the stalks with a knife. A rubber band or twist-tie is applied to the cut stalks to maintain integrity of the bunch. Long stalks are desirable for bunching.

Some markets may prefer loose packed leaves for bunching later. Parsley must be cut at least 1 to 1 1/4 inches above the crown of the plant if multiple cuttings are desired.

Parsley marketed for dried product may be mechanically harvested before they are conveyed to dehydrators.

Hamburg or turnip rooted parsley is very hardy and can withstand a moderate freeze. Plants may be left in the ground until marketing, or may be dug and stored in trenches until marketed. Roots are washed and discolored leaves are removed before marketing.



Parsley are mostly field packed in wax-corrugated cartons with 60 bunches weighing 20 to 25 lbs.

Parsley that are not field packed will be washed at a packinghouse where any faded

or yellowing leaves are discarded. To maintain green color and freshness, parsley is hydrocooled or packed on ice to remove field heat and maintain crispness.

There is only one USDA grade for parsley. U.S. No. 1 consists of parsley of similar varietal characteristics with good green color and free of decay, debris, yellow or discolored leaves, and damage caused by seed stems, wilting, or freezing.



Parsley is normally stored in warehouses with forced air cooling. Optimum storage and handling temperatures range from 32° to 36°F.





Having a basic understanding of the way parsley is grown, harvested, and cooled will provide the basic background information that will be helpful to regulators when completing inspections or investigations in the field.

The agricultural practices described in this production summary are common on most large commercial farms like those found in major parsley producing regions in the United States. There are undoubtedly variations in these practices depending on the region, operation size, and individual grower preferences. This is especially true of farms outside of the U.S.

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