

tebufenozide (Confirm 2F)
 thiodicarb (Larvin 3.2F)

Flea Beetles, Leafhoppers, Tarnished Plant Bugs

imidacloprid (soil-Admire 2F, Admire PRO; foliar-Nuprid 1.6F, Provado 1.6F or OLF) **(FB, LH only)**
 beta-cyfluthrin (Baythroid XL)
 permethrin (Pounce 3.2EC or OLF) **(LH only)**
 carbaryl (Sevin 80S or OLF)
 dinotefuran (soil, foliar) (Venom 70SG or OLF) **(LH only)**

Carrot Weevil

azinphos-methyl (Guthion 50WP or OLF)--**A Special Local-Needs Label 24(c) is in effect in New Jersey.**

Pesticide	Use Category ¹	Hours to Reentry	Days to Harvest
INSECTICIDE			
acetamiprid	G	12	7
azinphos-methyl	R	5 days	21
<i>Bacillus thuringiensis</i>	G	4	0
beta-cyfluthrin	R	12	0
carbaryl	G	12	14
dinotefuran (soil/foliar)	G	12	21/7
emamectin	R	48	7
flonicamid	G	12	0
imidacloprid (soil/foliar)	G	12	21/7
indoxacarb	G	12	3
malathion	G	12	21
methoxyfenozide	G	4	1
permethrin	R	12	1
pymetrozine	G	12	7
spinetoram	G	4	1
spinosad	G	4	1
tebufenozide	G	4	7
thiodicarb	G	12	14
zeta-cypermethrin	R	24	1
FUNGICIDE (FRAC code)			
copper, fixed (Group M1)	G	24	0
MetaStar (Group 4)	G	48	45
Quadris (Group 11)	G	4	0
Ridomil Gold (Group 4)	G	48	21
Ultra Flourish (Group 4)	G	48	--

See Table D-6.

¹ G = general, R - restricted

Nematode Control

Nematode control is essential for satisfactory parsley production. See "Nematodes" section of Soil Pests-Their Detection and Control. Before planting, soil should be fumigated with metam-sodium (Busan or Vapam HL) according to directions in the "Soil Fumigation" section.

Disease Control

Damping-off

Apply the following as a soil surface spray immediately after seeding:

mefenoxam (Ridomil Gold 4EC/A--1.0-2.0 pt or 2.0-4.0 pt Ultra Flourish 2E/A), or
 metalaxyl (MetaStar)--4.0-8.0 pt 2E/A

Bacterial leaf blight and Septoria leaf spot

To help reduce disease pressure from bacterial and fungal diseases, do not plant parsley continually in the same field. Rotate with non-related crops for at least 2 years. Space successive plantings in the same year as far apart as possible. Heavy winds and rain may damage leaves and predispose leaves to bacterial infections.

Bacterial leaf blight: Prevention is key to reducing spread of the pathogen. Avoid working in the fields while the foliage is wet to help reduce spread. Scout fields on a regular basis for early symptoms, apply the following and repeat every 7 days:

fixed copper at labeled rates.

Tank-mixing a fixed copper with Quadris will also help control Septoria leaf spot.

Septoria leaf spot: The disease has caused serious problems in past years. Severe losses will occur if not controlled properly, especially if field or farm has a history of the disease. Grow parsley in areas of farm without history of disease. Plant blocks as far part as possible. **Early detection and prevention is key to controlling septoria leaf spot.** Scout daily, and apply fungicides preventatively, (before first leaf spots appear), tank-mix or rotate the following every 7 days. Early season infections (ie. prior to first cutting) will severely reduce subsequent harvests.

Apply:

Quadris--6.0--15.5 fl oz 2.08SC/A plus copper, fixed--at labeled rates.

Note: Do not make more than 4 applications of Quadris per growing season.

Tank-mixing Quadris with a fixed copper may also help reduce bacterial infections.

PARSNIPS

Varieties

Varieties¹

All America	These varieties
Javelin*	are recommended for DE,
Harris Model	MD, NJ, PA, VA, WV

¹ Varieties listed alphabetically

* Denotes hybrid variety

Recommended Nutrients Based on Soil Tests

Before using the table below, refer to important notes in Plant Nutrient Recommendations in Section B, Soil And Nutrient Information. These notes provide additional suggestions to adjust rate, timing and placement of nutrients depending on soil type cation exchange capacity and existing fertility levels.

Parsnips	Nitrogen (N) Pounds per Acre	Soil Phosphorus Level			Soil Potassium Level		
		Low	Med	Opt.	Low	Med	Opt.
		Pounds P ₂ O ₅ per Acre			Pounds K ₂ O per Acre		
	50-75 ¹	150 ¹	100 ¹	50 ¹	150 ¹	100 ¹	50 ¹
	25-50 ²	150 ²	100 ²	50 ²	150 ²	100 ²	50 ²
	25-50 ³	0	0	0	0	0	0

¹Total amount nutrient recommended

²Broadcast and disk-in

³Sidedress 4-5 weeks after planting

Apply 1 - 2 pounds of boron (B) per acre with broadcast fertilizer. See Table B-10 for more specific boron recommendations.

Seeding and Spacing

Seed in March and April. The seeds germinate slowly. Never use seed that is more than 1 year old.

Seed 3 to 5 pounds per acre at a depth of 1/4 to 3/8 inch in rows 18 to 30 inches apart. Adjust seeder to give 8 to 10 plants per foot of row. Thin seedlings to 2 to 4 inches in the row.

Harvesting and Storage

Parsnips may be dug, topped, and stored at 32°F (0°C) at 90 to 95 percent relative humidity. Storage can be up to 6 months. Parsnips left in the ground over winter should be removed before growth starts in the spring.

Weed Control

Identify the weeds in each field and select recommended herbicides that control those weeds. See Tables E-2 and E-3.

Match preplant incorporated and preemergence herbicide rates to soil type and percent organic matter in each field.

Apply postemergence herbicides when crop and weeds are within the recommended size and/or leaf stage.

Preemergence

Linuron--0.75-1.5 lb/A. Apply 1.5 to 3 pounds per acre Lorox 50DF or 1.5 to 3 pints per acre of Lorox 4L right after seeding. Plant seed at least 1/2 inch deep.

Postemergence

Clethodim--0.094-0.125 lb/A. Apply 12 to 16 fluid ounces of Select Max 0.97EC with nonionic surfactant to be 0.25% of the spray solution (1 quart per 100 gallons of spray solution) postemergence to control many annual and certain perennial grasses, including annual bluegrass. Select will not consistently control goosegrass. Control may be reduced if grasses are large or if hot, dry weather or drought conditions occur. For best results, treat annual grasses when they are actively growing and before tillers are present. Repeated applications may be needed to control certain perennial grasses. Yellow nutsedge, wild onion, or broadleaf weeds will not be controlled. Do not tank-mix with or apply within 2 to 3 days of any other pesticide unless labeled, as the risk of crop injury may be increased, or reduced control of grasses may result. Observe a minimum preharvest interval of 30 days.

Postharvest

Paraquat--0.6 lb/A. **A Special Local-Needs 24(c) label has been approved for the use of Gramoxone Inteon 2SC for postharvest desiccation of the crop in Delaware, New**

Jersey and Virginia. Apply 2.4 pints per acre Gramoxone Inteon 2SC as a broadcast spray after the last harvest. Add nonionic surfactant according to the labeled instructions. See the label for additional information and warnings.

Insect Control

NOTE: Copies of specific insecticide product labels can be downloaded by visiting websites www.CDMS.org or www.Greenbook.org. Also, specific labels can be obtained via web search engines.

Aphids

imidacloprid (soil-Admire 2F, Admire PRO; foliar-Nuprid 1.6F, Provado 1.6F or OLF)

malathion (Malathion 57EC or OLF)

Leafhoppers

beta-cyfluthrin (Baythroid XL)

carbaryl (Sevin 80S or OLF)

imidacloprid (soil-Admire 2F, Admire PRO; foliar-Nuprid 1.6F, Provado 1.6F or OLF)

Pesticide	Use Category ¹	Hours to Reentry ²	Days to Harvest
INSECTICIDE			
beta-cyfluthrin	R	12	0
carbaryl	G	12	7
imidacloprid (soil/foliar)	G	12	21/7
malathion	G	12	7
FUNGICIDE (FRAC code)			
Cabrio (Group 11)	G	12	0
chlorothalonil (Group M5)	G	12	10
Quadris (Group 11)	G	4	0
Ridomil Gold (Group 4)	G	48	0

See Table D-6.

¹ G = general, R = restricted

² Chemicals with multiple designations are based on product and/or formulation differences. CONSULT LABEL.

Disease Control

Damping-Off

Apply the following preplant incorporated or as a soil-surface spray after planting:

Ridomil Gold--1.0-2.0 pt 4EC/A

Leaf Spots, Canker and Mildew

Rotate to allow 2 years between parsnip plantings. Plant in well-drained soils with a pH of 7.0. Ridge soil over shoulders to prevent infection. Begin sprays at the first sign of disease. Repeat no more than three times at 10-day intervals.

Rotate or tank-mix:

chlorothalonil--1.5-2.0 pt 6F/A or OLF

With one of the following FRAC code 11 fungicides:

Quadris--9.0-15.5 fl oz 2.08SC/A, or

Cabrio--8.0-12.0 oz 20EG/A

Do not make more than one consecutive application of Quadris or Cabrio.