

Beets

Culture

Beets are a cool-season crop, tolerating frost or even light freezes. Highest quality is obtained when temperatures are between 55-70°F. Hot weather produces white bands in the root.

Seeding begins in early April and continues until late July. Seeds will germinate at temperatures between 40-80°F. Beets will go to seed, or bolt, if exposed to 2-3 weeks of temperatures below 50°F.

Varieties

Detroit Dark Red strains
Warrior
Red Ace
Ruby Queen
Redpack
Pacemaker III

Lime and Fertilizer

Maintain soil pH at 6.0-6.8.

After plowing, but prior to planting, broadcast and disk in all fertilizer. Apply at the rates of 90-120 lb N, 75-150 lb P₂O₅ and 75-150 lb K₂O. Apply additional nitrogen as needed.

Boron: Apply 1 lb/A of actual boron on mineral soils over the row at planting or with the fertilizer.

Spacing and Seeding

Rows: 12-16 inches between rows. Thin plants to 2-3 inches apart.

Seeding rate: 10-12 lb of seed/A (85% germination or better).

Disease Control

Damping Off

Buy seed commercially treated with Apron Maxx or Thiram. Rotate to allow 2-3 years between beet plantings. Plow under residue at end of season. If Rhizoctonia has been a problem, seed may be treated with **Maxim 4 FS** at 0.08-0.16 fl oz/100 lb of seed. **Ridomil Gold EC** may be applied preplant incorporated or on the surface to control damping off by Pythium spp. (see label instructions).

Cercospora Leaf Spot

Allow 2-3 years between beet plantings. Plow under residue at end of crop. When conditions are favorable for disease, apply fungicide according to label instructions:

Quadris 9.0-15.4 oz/A, 7-14 day intervals (0 days-PHI).

Cabrio EG 8-12 oz/A, 7-14 day intervals, maximum three applications per season (0 days-PHI).

Kocide 3000, 2000, 101, 4.5 LF or DF (see label for instructions).

Nu-Cop 50 DF 2-5 lb/A, depending on disease severity. Make 4-5 applications at 10-14 day intervals.

Cuprofix 20DF 2.5-6.5 lb/A.

Cyst Nematode

Nemacur 3 5 fl oz/1000 ft row. This is a restricted use pesticide due to high acute toxicity and toxicity to wildlife.

Insect Control

See the table below for overview of insecticides used to control beet pests.

Insecticides for Control of Beet Pests (✓ = labeled; - = not labeled)					
	Pre-harvest interval (days)	Cabbage maggot	Flea beetles	Aphids	Leafminers
carbaryl (Sevin)	7	-	✓	-	-
deltamethrin (Decis)	3	-	✓	-	-
diazinon	14	-	-	✓	✓
imidacloprid (Provado, Admire)	7, 21	-	✓	✓	-
malathion	7	-	-	✓	-
methoxyfenozide	14	-	-	-	-
spinetoram (Radiant)	7	-	✓	-	✓
spinosad (SpinTor)	3	-	-	-	✓
thiamethoxam (Actara, Platinum)	7	-	✓	✓	-
zeta-cypermethrin (Mustang)	1	✓	✓	-	-

• Preplant broadcast soil treatment

Diazinon

For cutworms, wireworms.

Diazinon 50WP: 4-8 lb/A.

Diazinon AG500 (4EC): 2-4 qt/A.

Diazinon 14G: 14-28 lb/A for cutworms; 21-28 lb/A for wireworms.

• At-planting treatment

Imidacloprid (21 days-PHI)

For aphids, flea beetles, leafhoppers.

Admire 2F, Alias 2F: 0.7-1.7 fl oz/1,000 ft or 10-24 fl oz/A.

Admire Pro (4.6F): 4.4-10.5 fl oz/A.

Thiamethoxam

For aphids, flea beetles, leafhoppers, whiteflies.

Platinum 2SC: 5-8 fl oz/A. Do not use more than 8 fl oz/A or less than 5 fl oz/A per season.

• Foliar treatment

Carbaryl (7 days-PHI)

For flea beetles.

Carbaryl 4L; Sevin 4F; Sevin XLR Plus (4EC): 0.5-1 qt/A.

Sevin 50WP: 1-2 lb/A.

Sevin 80S: 0.62-1.25 lb/A.

Deltamethrin (3 days-PHI)

Decis 1.5EC, Delta Gold 1.5EC: 1.0-2.4 fl oz/A for cutworms, loopers. 1.5-2.4 fl oz/A for flea beetles, leafhoppers, tarnished plant bug. Limit 12.0 fl oz/A per season. Allow 3 days between applications.

Diazinon (14 days-PHI)

For aphids, leafminers.

Diazinon AG500 (4E): 0.5-1 pt/A.

Diazinon 50WP: 0.5-1 lb/A.

Imidacloprid (7 days-PHI)

For aphids, flea beetles, leafhoppers, whiteflies.

Provado 1.6F, Pasada 1.6F: 3.5 fl oz/A.

Malathion (7 days-PHI)

For aphids.

Malathion 5EC; Malathion 57EC: 1.5-2 pt/A.

Malathion 8 Aquamul: 1-2.5 pt/A.

Malathion 8EC: 0.5-1 pt/A.

Methoxyfenozide (14 days-PHI)

For caterpillars: cabbageworms, loopers, armyworms.

Intrepid 2F: 6-16 fl oz/A. Limit 64 fl oz/A per season.

Spinetoram (7 days-PHI)

For leafminers, caterpillars.

Radiant 1SC: 6-8 fl oz/A. Limit 4 applications per year.

Spinosad (3 days-PHI)

For leafminers, caterpillars, thrips.

SpinTor 2SC: 3-6 oz/A.

Entrust (80WP): 1-3 oz/A.

Thiamethoxam (7 days-PHI)

For aphids, flea beetles, leafhoppers, whiteflies.

Actara 25WDG: 1.5-4 oz/A. Limit 8 oz/A per season.

Zeta-cypermethrin (1 day-PHI)

For flea beetles.

Mustang Max 0.8EC: 1.28-4 fl oz/A.

Mustang 1.5EW: 1.4-4.3 fl oz/A.

Weed Control

Preplant Incorporated

RoNeet 6E: Apply 2.0-2.5 qt/A, preplant incorporated (3-4 inches deep) immediately after applications. Especially good on annual grasses. Use on mineral soils only. Weed control is quite variable.

Preemergence

Pyramin FL: Apply 3.8 qt/A preemergence. For control of annual weeds.

Postemergence

Poast: For control of grass apply 2.5 pt/A. Include COC 1% V/V (60 days-PHI).

Select 2EC: For control of grass apply 0.5 pt/A. Include COC at 1% V/V (30 days-PHI).

Spin-Aid: Controls several common broadleaf weeds if applied when weeds are at the 2 true-leaf stage. Apply 3 to 6 pt/A when beets are in the 4 to 6 true-leaf stage. Severe crop injury may result if applied before this stage.

Stinger: For control of specified broadleaf weeds including common ragweed and cocklebur apply 0.25-0.5 pt/A when target weeds are actively growing. A second application is permissible, provided the total applied is not more than 0.5 pt/growing season and no later than 30 days before harvest (30 days-PHI).

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Dual Magnum: Controls germinating annual grasses and broadleaf weeds. Apply 0.33 to 0.67 pt/A Dual Magnum after seeding, followed by irrigation (at least 0.5 inches) if rainfall is not expected. Do not use on soils with less than 1.5% organic matter and weed control may be reduced on muck soils. Users must be in possession of the correct supplemental label and must indemnify Syngenta Crop Protection. To obtain a copy of the label, visit the FarmAssist website (www.farmassist.com). You must register and complete an indemnification agreement to download the label.