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## Garden Crop Pest Control Chart

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# Garden Crop Pest Control Chart

By GEORGE I. GILBERTSON, Extension Entomologist

## General Feeders

**Blister Beetles**—Elongate, usually gray; gray spotted to black beetles. Feed on potatoes, garden and field legumes, at times beets, onions, and other vegetables. Use barium fluosilicate 1 part, cheap flour 3 parts; apply as dust. Or pyrocyde 10 (stabilized pyrethrum) as directed on container.

**Cutworms**—Pale to dark colored worms hiding in soil; feed at night on foliage or by cutting plants at surface. Spread grasshopper bait mixed with molasses on soil around plants or along rows in early evening. Repeat 2 days later if necessary—poison may be spread before plants are up or transplanted. Paper or tin can collars are often efficient.

**Grasshoppers**—Scatter poison bait thinly around garden in early morning. Use no more than 20 lbs. to the acre. Repeat every 4 days. Keep bait on ground since arsenic may burn tender leaves.

**Flea Beetles**—Small shiny black or striped beetles with jumping habits. Several species feed on a variety of crops, cutting leaves with fine shot holes. Dust with cube or derris dusts 1% rotenone strength—derris or cube dust may be purchased at usually 4 or 5% rotenone content. Dilute with cheap wheat flour to obtain 1% rotenone strength. (Do not use lime with derris.)

## Beans and Peas

**Aphids or Plant Lice**—Green, black or gray plant lice feed on stalks or underside of leaves. Lice have sucking mouth parts. Spray thoroughly with Nicotine Sulfate (Black Leaf 40) 1½ teaspoons to 1 gallon of soapy water. Pyrethrum extracts; spray according to directions on container. Dust with 3% Nicotine dusts. Made by thoroughly mixing 1 oz. of Nicotine Sulfate to 1 lb. of hydrated lime. Pyrethrum dusts as directed.

**Redspider**—Small mites feed through sucking mouth parts. Webbing usually on under side of leaves. Use 1 oz. of potassium sulphide to 2 gallons of water. Dust with finely ground sulfur dust. (Be sure under side of leaves receives treatment.)

## Beets

**Aphids**—See Beans.

**Flea Beetles**—See General Feeders.

## Cabbage, Cauliflower, Etc.

**Aphids**—See Beans.

**Flea Beetles**—See General Feeders.

**Cabbage Maggot**—Small white maggots which feed on and tunnel into roots and underground portions of stem. Use 1 or 2.

1—Moisten soil about each plant with ½ cup of Calomel solution (½ oz. Calomel to 5 gallons of water).

2—Dust ground heavily about each plant with Calomel-hydrated lime dust (2 oz. Calomel to 3 lbs. hydrated lime. Mix thoroughly with flour sifter).

**Cabbage Worms, Imported Cabbage Plutella, Cabbage Lopper**—Dust plants when worms first appear with derris or cube dusts (.75% to 1% rotenone content). Dust plants with activated pyrethrum dusts (such as Pyrocyde etc.). Repeat as necessary.

## Carrots

**Carrot Beetle**—Beetle is a brownish-black oval insect a half inch long with heavy rounded body. Larva or grub whitish usually not injurious. Beetles do damage to variety of crops. Clean garden culture fall and spring. Add rotted manure to hold beetles in check.

## Corn (Sweet)

**Corn Earworm**—Greasy green to dark worm that feeds inside husk on developing kernels. Dust green corn silk with mixture of equal parts of lime and lead arsenate. Repeat two to three times. Clip off end of shuck as soon as silk shows first brown.

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## Cucumbers, Melons

**Cucumber Beetle**—Small yellow and black striped beetles eat foliage and stems. Protect plants when small with fine screen of mesh cloth covers. Dust with activated pyrethrum dusts. Derris or cube dusts (1% rotenone). See flea beetles—General Feeders.

## Pumpkin, Squash

**Plant Lice or Aphids**—Small green plant lice on underside of leaves suck sap. Turn over infested vines before leaf curl has taken place. Spray 1½ teaspoons Nicotine sulfate to 1 gallon soapy water. Dust with 3% Nicotine Dusts. See Aphids under Beans.

**Squash Bug**—Large brown plant bugs that suck sap from under side of leaves, found under dirt clods near plant in early morning. Examine leaves for conspicuous yellowish to bronze colored eggs—remove and destroy. Trap bugs under burlap or boards placed close to vines. Examine early each morning and destroy. Spray nymphs or young bugs with strong Nicotine (2 teaspoons to 1 gal. soapy water). Does not kill adult bugs.

## Onions

**Onion Maggot**—Small white maggots tunneling in bulb and stems. Apply calomel treatment (see under cabbage) when onions are 1 inch high 2 to 3 times per week.

**Onion Thrips**—Tiny slender insects feed on leaves of plant causing them to whiten finally to wilt. Usually found at leaf bases where leaves are close together. Nicotine sulfate (1½ teaspoon to 1 gal. soapy water) under high pressure to drive solution into leafy crown. Plant as early as possible. Spade or plow soil and destroy onion tops immediately after harvest.

## Potatoes

**Colorado Potato Beetle**—Large rounded black and yellow striped beetles and red grubs which eat foliage.

**Flea Beetle**—Small shiny black colored jumping beetles; feed on foliage. Deposit eggs around base of plant. Small white grubs feed on tubers.

**Potato Leaf Hoppers**—Small light green to tan colored jumping insects suck sap from underside of leaves. Disseminators of hopper burn disease.

**Potato Aphis**—Small pink and green lice suck sap from underside of leaves and on terminal shoot.

**Hopper Burn**—Leaflets first show V-shaped yellow to brown area at tip, later extends to leaf margins which roll, finally kills leaf, transmitted by potato leaf hoppers.

A regular schedule of pest prevention should be followed. 1.—Plant certified seed potato—Treat seed potatoes before planting.

2.—First spray when potatoes are 6 to 8 inches high. Use Bordeaux mixture (6-4-50). Dissolve 6 lbs. limatic in 25 gal. water. In wooden container dissolve 4 lbs. copper sulfate. Pour lime solution and copper solution together into spray tank and use immediately. If chewing insects (Colorado potato beetle, and flea beetles) are present add up to one lb. of Paris green to this 50 gallons of Bordeaux mixture. If plant lice are present use Nicotine sulfate at the rate of ½ pint to 50 gallons of Bordeaux mixture. This is a combination spray for potato diseases and insects and to be effective must be timely.

3.—Repeat every 10 days to two weeks depending upon local requirements. Do a thorough job.

**Potato Psyllid**—Jumping plant lice. Found in Western South Dakota. Spray thoroughly with lime sulfur. 1 gal. liquid lime sulfur or 5 lbs. dry lime sulfur to 40 gallons of water.

## Radishes and Turnips

**Flea Beetles**—See General Feeders.

**Cabbage Maggot**— See Cabbage.

## Tomatoes

**Tomato**—Large green worms feeding on foliage. When on few plants hand pick them and destroy. Large scale control use derris or cube dust (1% rotenone strength as for flea beetles).

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