

# Methow Garden Planting Guide: Planting Dates, Depths & Temperatures

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Vegetable	Days to Maturity	Dates	Seed Depth & Spacing	Ideal Germination Temperature	Notes
Artichokes <i>Cynara scolymus</i>	85-100	Indoors: March 15 Transplant: June 1	Plant seeds ½” in 4” pots, set plants out 24” apart in rows 36” apart	Optimum: 75 Range: 65-85 Minimum: 60	Setting out after frost but when still cool helps stimulate flower bud growth. Plants will not overwinter outdoors in the Methow; use a variety bred to produce as an annual.
Arugula <i>Eruca vesicaria</i>	35-50	Outdoors: April 15-Sept	½” deep, 1” apart in rows 18” apart	Optimum: 70 Range: 65-85 Minimum: 50	Plant is frost hardy; bolts to flower and seed in heat. Can use peppery flowers in salad. Frequent watering reduces pungency.
Basil <i>Ocimum basilicum</i>	75-85	Indoors: April 1 Outdoors: June 10	¼” deep, 10-12” apart in rows 24” apart	Optimum: 75-80 Range: 70-85 Minimum: 65	Can be started from seed in the garden on June 10 or planted indoors in April. Extremely frost sensitive.
Beans-Pole <i>Phaseolus vulgaris</i>	55-70	Outdoors: June 5	1” deep, 6 beans per pole (thin to 3) or 2” apart on a trellis	Optimum: 70 Range: 60-80 Minimum: 60	Poles or trellis should be 6’ tall. Keep soil moist in hot weather. Keep beans picked clean for greater production. Treat seed with inoculant for greater production.
Beans- Bush/Dry <i>Phaseolus vulgaris</i>	50-60 bush 70-100 dry	Outdoors: June 5 Replant: July 1	1” deep, with plants 4-6” apart in rows 24” apart	Optimum: 70 Range: 60-80 Minimum: 60	White seeded beans germinate more slowly than black and brown. Shallow-rooted; be sure soil is moist in hot weather. Keep plants well picked to encourage new blooms and extend season. Treat seed with inoculant for greater production.
Beets <i>Beta vulgaris</i>	45-75	Outdoors: April 1 for early, July 1 for winter beets	Plant seeds ½” deep and 1” apart, thin to 4” in rows 18-24” apart	Optimum: 80 Range: 60-85 Minimum: 40	Scab can be prevented by 1) making sure that pH level is near 7.0 (or slightly acidic, 6.5), 2) keep 2 years rotation between beets (or potatoes) in same spot, 3) no wood ashes or fresh manure in soil. One “seed” grows multiple plants—thin to one plant per germination and 3” apart.
Broccoli <i>Brassica oleracea</i>	70-90	Indoors: April 1 Transplant: May 1 Outdoors: April 15	Plant seeds ½” deep, space growing plants 24” apart, rows 24”	Optimum: 75 Range: 65-85 Minimum: 50	All of the Brassicias (broccoli, brussel sprouts, cabbage, cauli flower, cabbage, kale) can be direct-seeded in the garden, or started indoors.
Brussels Sprouts <i>Brassica oleracea</i>	95-110	Indoors: April 1 Transplant: May 1 Outdoors: April 15	Plant seeds ½” deep, space growing plants 24” apart, rows 24”	Optimum: 75 Range: 65-85 Minimum: 50	As sprouts form at the base remove lower leaves (or don’t, says Fedco). Pinch out the top, center growing point on about Sept 1 <sup>st</sup> , which encourages rapid development of upper sprouts. Harvest from bottom as sprouts reach about 1” diameter. Sweeter after a frost.
Cabbage <i>Brassica oleracea</i>	65-100 depending on variety	Indoors: April 1 Outside: May 1 (for storage)	Plant seeds ½” deep, space growing plants 24” in rows 24” apart	Optimum: 85 Range: 45-95 Minimum: 40	Space small headed cabbages plant at 12”, larger storage cabbages at 24” apart. Keep soil moist. Plants can form small secondary heads after the original is cut.
Carrots <i>Daucus carota</i>	45-75	Outdoors April 15 to July 1	Plant seeds ¼” deep, at 6” tall thin to 1” apart; rows can be 12” wide.	Optimum: 80 Range: 55-85 Minimum: 40	No fresh manure, which causes hairy roots. Can take 3 weeks to germinate—keep the soil moist. Keep up on the early weeds in carrots.
Cauliflower <i>Brassica oleracea</i>	68-95	Indoors: March 15 Outdoors: April 15	Plant seeds ½” deep, space growing plants 24” apart, rows 24”	Optimum: 80 Range: 55-85 Minimum: 40	Transplant at 6 wks. Will mature from seed planted in the garden. Tie inner leaves over the head when it starts to form for white heads.

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Cilantro <i>Coriandrum sativum</i>	50-55 leaf 90-100 seed	April 15-Sept 1	Plant seeds ½ “ in rows 4” apart	Optimum: 55 Range: 45-65 Minimum:35	Flowers are edible. Bolts to flower and seed quickly—keep planting. Let it go to seed for coriander.
Corn-sweet <i>Zea mays</i>	75-90	Outdoors: June 1, June 15, July 1	Plant seeds 1-2” deep and 4” apart in rows 30” apart, thin rows to 12” apart	Optimum: 95 Range: 60-95 Minimum: 50	Do not plant in isolated single or double rows, always plant corn in at least four rows for adequate wind pollination. Corn is a big plant and will be more productive if side-dressed with organic fertilizer while growing..
Cucumber <i>Cucumis sativus</i>	50-55 pickling 60-70 slicing	Indoors: May 15 Transplant: June 15	Plant seeds ½” deep, 4- 6 seeds per hill spaced 3’ apart	Optimum: 95 Range: 60-95 Minimum: 60	Plant on trellis to save space. If starting indoors plant in peat pots so roots will not be disturbed. A heavy soil, needs fertile, moist soil. Pick regularly.
Eggplant <i>Solanum melongena</i>	60-90	Indoors: March 15 Transplant: June 1	Plant seeds ¼” deep in planting tray, then 18” apart in rows 2.5’ apart	Optimum: 85 Range: 75-90 Minimum: 60	Originated in India. Fruits will be larger if some late-blooming flowers and terminal growth is pinched off. Harvest before fruits lose their glossy shine.
Kale <i>Brassica oleracea</i>	60	Outside: April 15 For fall crop: July 1	Plant seeds ½” deep, space growing plants 24” apart, rows 24”	Optimum: 75 Range: 65-85 Minimum: 50	Kale has the best flavor after a light frost. Kale that has matured in late summer and fall will stay edible through heavy frost.
Lettuce <i>Lactuca sativa</i>	25-30 baby 45-60 heads	Indoors: Feb 15, set out in coldframe March 1 Outside: April 15	Plant seeds ½” deep and 1” apart in 12” wide rows, or 12” apart for head lettuce	Optimum: 75 Range: 40-80 Minimum: 35 Maximum: 85	Lettuce requires plenty of moisture. Will germinate as low as 40d, often will not germinate over 75d. Can be planted closely in 12” wide rows, and cut off 2” above ground when 6-8” tall—it will grow back several times.
Melon <i>Cucumis melo</i>	75-95	Indoors: May 15 Transplant: June 15	Plant seeds ½” deep in hills 2/hill 48” apart	Optimum: 90 Range: 75-95 Minimum: 60	Best to start indoors, but don’t let seedlings become root-bound. Plant in warmest part of garden, or up against south side of shed or house.
Onions <i>Allium cepa</i>	95-125 seed 80-105 starts	Start indoors March 15, transplant April 15- May 1.	Plant ½” deep, 2-4 seeds per inch, rows 15” apart	Optimum: 75 Range: 50-95 Minimum:35	Best production when planted as starts, we get ours from Johnny’s Selected Seeds. Can be started indoors in crowded flats and transplanted.
Parsley <i>Petroselinum crispum</i>	70-80	Outside: April 15	Plant seeds ½” deep and 1” apart, rows 18”	Optimum: 75 Range: 50-85 Minimum: 40	Germinates best in cool soil, can take up to 30 days to sprout. Soak seed 4-8 hours before planting.
Parsnip <i>Pastinaca sativa</i>	110-120	Outside: April 15	Plant seeds ½” deep and ½” apart in rows 18” apart	Optimum: 65 Range: 50-70 Minimum: 35	Thin to 3-4 inches after germination. Harvest after frost for sweeter roots. Can be stored in garden all winter to feed the gophers.
Peas-snap/shell <i>Pisum sativum</i>	55-60	Outside: April 5	Plant seeds 1” deep and 1” apart, in rows 24” apart	Optimum: 75 Range: 50-75 Minimum: 40	Treat seed with bacterial inoculant for greater production. Mulch plants and water frequently to keep roots cool. Can be planted on either side of a support fence. Keep picked.
Peppers <i>Capsicum annuum</i>	65-85	Inside: April 1 Transplant: June 15	Plant seeds ½” deep indoors, set out 1½-2’ apart in rows 24” apart	Optimum: 85 Range: 65-95 Minimum: 60	Plant seeds indoors 8-10 wks before last frost. Germinates in 14 days at 70 degrees (may need an electric heating pad or wire), grow at 70 d with night temps not falling below 62 d. Fertilize several times when young. Consider using black plastic mulch to raise soil temperature.

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Potatoes <i>Solanum tuberosum</i>	70-100	Outdoors: May 1	Cut seed potatoes into egg sized pieces with at least two eyes. Plant 12" apart in rows 30" apart	Optimum: 65 Range: 50-75 Minimum: 45	Mound up soil and/or mulch as plants grow. Rotate to different soil annually. To avoid scab, mulch, keep moist, avoid wet/dry stress. No wood ashes or fresh manure in soil. Heavy mulch seems to help against potato beetle.
Spinach <i>Spinacia oleracea</i>	35-45	Outdoors- April 20. For a fall crop plant August 15.	Plant seeds ½" deep and 1" apart, thin to 3", with rows at least 12" apart	Optimum: 70 Range: 45-75 Minimum: 35	Replant every two weeks for continuing production. Nitrogen supplied during growth greatly increases size of plants.
Squash- Summer, Zucchini <i>Cucurbita pepo</i>	45-60	Indoors: May 15 in peat pot Transplant: June 15	Plant seeds or transplants in hills, 1" deep, 3/hill, 48" apart	Optimum: 90 Range: 70-90 Minimum: 60	Start indoors 3 weeks before last frost, or in garden on June 1. All squash are monoecious (bearing separate male and female flowers on the same plant).
Squash- Winter <i>Cucurbita species</i>	85-100	Indoors: May 15 in peat pot Transplant: June 15	Plant seeds or transplants in hills, 1" deep, 3/hill, 48" apart	Optimum: 90 Range: 70-90 Minimum: 60	Don't harvest till stems are brown and "corky", cure for two weeks at 80° F.
Tomatoes <i>Lycopersicon lycopersicum</i>	60-90	Indoors: March 15 Transplant: June 1	Plant seeds ½" deep; plant transplants 24" apart, and rows 30" apart	Optimum: 85 Range: 60-85 Minimum: 50	Indeterminate varieties need to be staked, determinate types do not. Sow indoors 6-8 wks before planting (March 15). Growing seedlings in full light and cooler temps, 60-70° to prevents legginess. Plant starts up to first leaves; the stems will root.

## Seed Saving Guide

This is a general, introductory chart to saving seeds in the garden. The list is arranged with those species with seed (or bulb/tuber) that is easiest to save in home gardens at the top of the chart and the most difficult to save at the bottom. “Isolation Distance” (column 5) is the distance in feet that any one variety within a given species has to be from another variety of the same species to prevent cross-pollination. “Inbreeding depression” (which shows up in “Notes,” column 7) is an undesirable genetic condition, the higher the inbreeding depression the greater the number of plants should be grown of that particular variety or species if you are going to save its seed.

Vegetable	Life-Cycle	Pollination	Pollinator	Isolation Distance	Seed Longevity	Notes
Garlic <i>Allium sativum</i>	Grown as an Annual	Not applicable	Not applicable	0	Bulbs keep 6-8 mo at 40d	Plant cloves in the middle of October, mulch to protect against early winter freezing of soil. Cut or pull off flower heads when they appear. Harvest bulbs when tops fall over or when leaves wither. Air-dry bulbs, cut off roots and tops, store in a cool place.
Potato <i>Solanum tuberosum</i>	Grown as an Annual	Not applicable	Not applicable	0	Tubers keep 4-6 mo at 40d	Can produce a 25:1 return on planting stock. Plant in early May, 4” deep and 1.5’ apart. Can be planted on soil surface and covered with 1’ of straw mulch—potatoes will grow on the ground.
Bean <i>Phaseolus vulgaris</i>	Annual	Self	Self, Insects	0-100’	2-3 years	No inbreeding depression. Flowers are self-fertile; a small amount of insect cross-pollination does occur (up to 25%). Crossing that does occur will not show up in seed, but rather in the next year’s crop. In areas where other pollen sources are abundant, growers often claim that beans do not cross at all (as pollinators are busy elsewhere); in some areas isolation may not be necessary.
Pea <i>Pisum sativum</i>	Annual	Self	Self, Insects	5-50’	2-3 years	No inbreeding depression. Most flowers are pollinated before opening, therefore crossing is minimal, although it does occur. One estimate is that crossing is less than 1%.
Basil <i>Ocimum basilicum</i>	Annual	Cross	Insects	150’	5 years	Ripe seed heads can be harvested and dried out of the sun while the plant continues to grow. Each flower contains 4 seeds, which are difficult to extract from the dried seed pod. Rub each raceme over a fine wire mesh.
Lettuce <i>Lactuca sativa</i>	Annual	Self	Self, Insects	10-25’	2-3 years	No inbreeding depression. Lettuce is largely self-pollinating; crossing between varieties can be as high as 5% for varieties grown side by side. Seeds ripen irregularly and are ready for harvest 12-24 days after flowering. To obtain the maximum amount of seed, the plants should be harvested daily during that period by shaking the seed heads into a large grocery sack. Alternately the entire head can be cut and put into a bag.
Spinach <i>Spinacia oleracea</i>	Annual	Cross	Wind	½ mile	2-3 years	Little inbreeding depression. Seed is either prickly or smooth, which corresponds with to the plant’s leaf texture. Smoother seeds produce more wrinkled leaves. Plants bolt in response to long day-length and/or markedly different night/day temperatures. Each plant is male or female. Maintain a ratio of 1 male plant to 2 female, with a minimum of 2 male and 4 female (sex can’t be determined until flowering).
Tomato <i>Lycopersicon lycopersicon</i>	Grown as an Annual	Self	Self, Insects	0-100’	4-10 years	No inbreeding depression. Generally tomato varieties do not cross-pollinate because the stigma never protrudes beyond the anthers. Beefsteak tomato flowers are more prone to crossing with other varieties because their stigma does protrude from the anthers.
Eggplant <i>Solanum melongena</i>	Grown as an Annual	Self, Cross	Insects	50’	5-7 years	Little inbreeding depression. Grow at least 6 plants for genetic diversity. Eggplant is largely self-fertile, but insects will visit. To save seed, let the fruits grow far past the edible stage, to dull purple-brown. Seeds from ready-to-eat eggplant will not be viable. See <i>Seed to Seed</i> for seed cleaning method.

Pepper <i>Capsicum annuum</i>	Grown as an Annual	Cross and/or Self	Insects	500'	2-3 years	Little inbreeding depression. Peppers are self-pollinating but bees commonly cause cross-pollination, so two varieties, say mild and hot, will cross if grown close together. This will not be evident until the next generation. Rubbing fresh flowers in the morning helps 'trip' the flower and induce pollination. Seeds are ripe when the fruit is fully mature.
Onion <i>Allium cepa</i>	Biennial	Cross	Insects	1500' to 1 mile	1 year (50% for 2 yrs)	Subject to inbreeding depression; at least 10 plants should be used for seed. Onions are biennials; bulbs must be planted in spring for summer seed. Onion flowers cannot self-pollinate because the anthers shed pollen before the stigma ripens. Insects will pollinate; if more than one variety is grown then bagging and hand pollination is necessary. Flower heads open over an extended period. Onions do not cross with chives or leeks. Seed heads shatter easily when dry.
Carrot <i>Daucus carota</i>	Biennial	Cross	Insects	½ mile	3-5 years	Flower heads (umbels) develop irregularly over 30 days; temps over 100d can damage seeds. Store roots over winter and replant in spring, use at least 10 plants for producing seed. Parsnip and parsley seed production is the same as for carrot seed. Coriander/cilantro readily bolts to flower and seed the first year of growth.
Beet/Chard <i>Beta vulgaris</i>	Biennial	Cross	Wind	½ mile	3-5 years	All beets and chards will cross with one another. Beet pollen is light and can travel 5 miles. To over-winter cut tops to 2" and roots to 6", pack roots in damp sand or sawdust, cover tops with sawdust or leaves. In the spring replant a minimum of 6 beets.
Squash/ Pumpkin <i>Curcubita pepo,</i> <i>C. maxima</i> & <i>C. moschata</i>	Annual	Cross and/or Self	Insects	1500'	4-6 years	There three primary species of squash, each with numerous varieties: <i>Curcubita maxima</i> includes many common winter squash: buttercup, hubbard, banana, pumpkin, etc. <i>C. moschata</i> includes all the buttemuts. <i>C. pepo</i> includes zucchini, crookneck, spaghetti and acorn squash. All varieties within a species will easily cross-pollinate and produce unpredictable offspring. To achieve varietal purity female flowers must be hand-pollinated and then taped shut. The technique is described in <i>Seed to Seed</i> , which recommends growing a minimum of 6 plants per variety to maintain genetic diversity, with 12-20 plants much preferred.
Broccoli/ Cauliflower <i>Brassica oleracea</i>	Biennial- Annual?	Cross (often self-sterile)	Insects	½ mile	3-5 years	Subject to inbreeding depression. The Mustard Family can be difficult for the garden seed saver. All varieties within each species cross with one another. It is difficult to store broccoli & cauliflower over-winter indoors; even in cool temps it rots. For seed, allow the central head of broccoli to bloom. Individual plants are self-sterile. To maintain genetic diversity, 6 plants and preferably 20 should be grown for seed.
Cabbage <i>Brassica oleracea</i>	Biennial	Cross (often self-sterile)	Insects	½ mile	3-5 years	Subject to inbreeding depression. The Mustard Family can be difficult for the garden seed saver. All members within each species cross with one another. In our climate cabbage must be stored indoors over winter, in a cool, dark place, leaving roots on. Will keep 2-4 months at 32-40 degrees and high humidity. After planting back outside the following spring, cut a shallow X in the top of the head, from which the seed stalk will emerge. At least 2 cabbages must be grown as individual plants are self-sterile; 6 plants would be a minimum for healthy genetic diversity.
Sunflower <i>Helianthus annuus</i>	Annual	Cross	Insects	½ mile	7 years	Subject to inbreeding depression. Some varieties are self-compatible (will pollinate themselves) and others are self-incompatible. At least 40 good plants needed to maintain genetic heterogeneity.
Corn <i>Zea mays</i>	Annual	Cross and/or Self	Wind	½ mile	2-3 years	Corn suffers from extreme inbreeding depression. A population of 200 plants (100 would be a bare minimum) is necessary for saving seed. Pollen is wind-transported and travels long distances, thus the ½ mile isolation factor