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Yields of Vegetable Crops

Crop	Expected Yields in Tons per Acre		
	Average	Good	Excellent
Asparagus	1	1.5	2
Bean, snap	2	3	4
Cabbage	13	15	20
Cantaloupe	10	15	19
Cucumber (slicing)	9	12	15
Cucumber (pickling, hand harvest)	6	10	12
Onion	13	18	23
Pepper, green	14	17	20
Potato (fall)	10	15	20
Pumpkin	10	15	25
Spinach	6	8	10
Summer squash	10	13	16
Sweet corn	4.5	8	10
Sweet potato	7	12	15
Tomato (fresh market)	11	13	15
Tomato (processing)	25	29	33
Watermelon	15	20	25

This table only provides general yield estimates for new or prospective growers. The USDA-National Agricultural Statistics Service Vegetable Survey provides more accurate information.

Postharvest Handling and Storage Life of Fresh Vegetables

A lack of adequate refrigeration and cooling will shorten the shelf-life and lower the quality of fresh vegetables. Cucumber, eggplant, lettuce, green or ripe pepper, potato, snap bean, summer squash, and tomato are among the most susceptible vegetables to chilling or freezing injury. Some cold injury symptoms that can make vegetables unmarketable. The most typical include pitting, water-soaked spots, browning, surface decay, and, in pepper and tomato, failure to ripen.

The following list of recommended storage condition information is adapted from *The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks* (USDA-ARS Agriculture Handbook Number 66, www.ba.ars.usda.gov/hb66/contents.html), *Knott's Handbook for Vegetable Growers* (Donald N. Maynard and George J. Hochmuth, 5th ed., 2007), and "Properties and Recommended Conditions for Long-Term Storage of Fresh Fruits and Vegetables" (Marita Cantwell, University of California-Davis, Postharvest Technology webpage, postharvest.ucdavis.edu).

Vegetable	Storage Conditions		
	Temperature (˚F)	Relative Humidity (%)	Relative Storage Life
Asparagus	36	95-100	2-3 weeks
Beans, snap	40-45	95	7-10 days
Beets & carrots, bunched	32	98-100	10-14 days
Broccoli	32	95-100	10-14 days
Cabbage, late	32	98-100	5-6 months
Cantaloupe	36-41	95	2-3 weeks
Cauliflower	32	95-98	3-4 weeks
Cucumber	50-54	85-90	10-14 days
Eggplant	50-54	90-95	1-2 weeks
Greens — collards, kale, & spinach	32	95-100	10-14 days
Lettuce	32	98-100	2-3 weeks
Okra	45-50	90-95	7-10 days
Onions, dry	32	65-70	1-8 months
Onions, green	32	95-100	3 weeks
Peas, in pods	32	90-98	1-2 weeks
Peas, southern	40-41	95	6-8 days
Pepper, green	45-55	90-95	2-3 weeks
Pepper, ripe	42-45	90-95	1 week
Potato, early	[a]	90-95	[a]
Potato, late	[b]	90-95	[b]
Pumpkin	54-59	50-70	2-3 months
Radish	32	95-100	1-2 months
Rhubarb	32	95-100	2-4 weeks
Squash, summer	40-45	95	1-2 weeks
Squash, winter	54-59	50-70	[c]
Sweet corn	32	95-98	2-5 days, up to 21 days for supersweet cultivars
Sweet potato	55-59	85-95	4-7 months
Tomato, light red	50-55	90-95	1 week
Tomato, mature-green	50-60	90-95	1-2 weeks
Tomato, firm-ripe	46-50	85-90	3-5 weeks
Turnip root	32	95	4-5 months
Watermelon	50-60	90	2-3 weeks

[a]Most summer-harvested potatoes are not stored. However, they can be held 4-5 months at 40˚F if cured 4-5 days at 60-70˚F before storage. They can be stored 2-3 months at 50˚F without curing. Potatoes for chips should be held at 70˚F or conditioned for best chip quality.

[b]Fall-harvested potatoes should be cured at 50-60˚F and high relative humidity for 10-14 days. Storage temperatures for seed or table stock should be lowered gradually to 38-40˚F. Potatoes intended for processing should be stored at 50-55˚F. Those stored at lower temperatures or with a high reducing sugar content should be conditioned at 70˚F for 1-4 weeks or until trial cooking tests are satisfactory.

[c]Winter-squash varieties differ in storage life. Acorn squash can be stored for 35-55 days, butternut squash for 60-90 days, and Hubbard squash for 180 days.

Conversions for Liquid Pesticides on Small Areas

Rate per Acre	Rate per 1,000 Square Feet	Rate per 100 Square Feet
1 pint	0.75 tablespoon	0.25 teaspoon
1 quart	1.5 tablespoons	0.5 teaspoon
2 quarts	3 tablespoons	1 teaspoon
1 gallon	6 tablespoons	2 teaspoons
25 gallons	4.5 pints	1 cup
50 gallons	4.5 quarts	1 pint
75 gallons	7 quarts	1.5 pints
100 gallons	9 quarts	1 quart

Check the pesticide label for the particular crop, pest, and site of your planned use.

Germination and Growing Guide for Vegetable Plants and Herbs

Crop	No. of Seeds per Oz	Opt. Germination Temp. (°F)	Usual Day Temp. (°F)	Min. Night Temp. (°F)	Time for Uniform Germination (days)
Asparagus	700	75			10-21
Broccoli	9,000	68-86	65-70	60	5-10
Brussels sprouts	9,000	68-86			5-10
Cabbage	9,000	85	65	60	5-10
Chinese cabbage	18,000	85			3-7
Cauliflower	9,000	80	65-70	60	5-10
Celery	72,000	70	65-70	60	10-21
Collards	9,000	68-86			3-10
Cucumber	1,100	68-86	70-75	65	3-7
Dandelion (for greens)	35,000	68-86			7-21
Eggplant	6,500	85	70-85	65	7-14
Endive	27,000	68-86	70-75	70	5-14
Kale	9,000	68-86			3-10
Leek	11,000	68			6-14
Lettuce	25,000	75	60-65	40	7
Okra	500	68-86			5-14
Pak-choi	18,000	68-86			3-7
Parsley	18,500	75			11-28
Pepper	4,500	85	70-75	60	6-14
Sweet potato plants (from tuberous roots bedded in sand)		77	75-85		14-21
Squash	400	80-90	70-75	65	4-7
Tomato	11,500	85	65-75	60	5-14
Herbs					
Anise	9,600	70			5
Basil, dark opal	20,000	70			10
Basil, leaves	9,600	70			10
Borage	2,100	70			8
Chives	22,000	60			10
Coriander	1,240	70			10
Dill	6,300	60			10
Fennel, sweet	4,000	65			10
Marjoram, sweet	100,000	70			8
Rosemary	30,000	60			15
Sage	3,250	70			15
Thyme	96,000	75			10