KSU HORTICULTURE REPORT





A well-planned, properly tended vegetable garden can provide not only an excellent source of fresh, nutritious vegetables, but also relaxation and enjoyment for the entire family. With a few simple tools, a little space, and a

desire to assist nature in plant growth, anyone can be a successful home gardener. This publication is a brief guide to vegetable gardening planting information.

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Vegetable Gardens

By

Vegetable Yields

	Average	Approximately		
	crop expected	planting		
Vegetables	per 100 feet	per person		
Asparagus	30 lb.	10–15 plants		
Beans, snap bush	120 lb.	15-16 feet		
Beans, snap pole	150 lb.	5–6 feet		
Beans, Lima bush	25 lb. shelled	10-15 feet		
Beans, Lima pole	50 lb. shelled	5–6 feet		
Beets	150 lb.	5-10 feet		
Broccoli	100 lb.	3–5 plants		
Brussels sprouts	75 lb.	2–5 plants		
Cabbage	150 lb.	3–4 plants		
Cabbage, Chinese	80 heads	3–10 feet		
Carrots	100 lb.	5-10 feet		
Cauliflower	100 lb.	3–5 plants		
Celeriac	60 lb.	5 feet		
Celery	180 stalks	10 stalks		
Chard, Swiss	75 lb.	3–5 plants		
Collards and kale	100 lb.	5-10 feet		
Corn, sweet	10 dozen	10-15 feet		
Cucumbers	120 lb.	1–2 hills		
Eggplant	100 lb.	2–3 plants		
Garlic	40 lb.	1–5 feet		
Kohlrabi	75 lb.	3–5 feet		
Lettuce, head	100 heads	10 feet		
Lettuce, leaf	50 lb.	10 feet		

Vegetable Yields

-	Average	Approximately		
	crop expected	planting		
Vegetables	per 100 feet	per person		
Muskmelon (cantaloup	e) 100 fruits	3–5 hills		
Mustard	100 lb.	5-10 feet		
Okra	100 lb.	4–6 feet		
Onions (plants or sets)	100 lb.	3–5 feet		
Onions (seed)	100 lb.	3–5 feet		
Parsley	30 lb.	1-3 feet		
Parsnips	100 lb.	5 feet		
Peas, English	20 lb.	15-20 feet		
Peas, southern	40 lb.	10-15 feet		
Peppers	60 lb.	3–5 plants		
Potatoes, Irish	100 lb.	50-100 feet		
Potatoes, Sweet	100 lb.	5–10 plants		
Pumpkins	100 lb.	1–2 hills		
Radishes	100 bunches	3–5 feet		
Salsify	100 lb.	5 feet		
Soybeans	20 lb.	50 feet		
Spinach	40–50 lb.	5-10 feet		
Squash, summer	150 lb.	2–3 hills		
Squash, winter	100 lb.	1–3 hills		
Tomatoes	100 lb.	3–5 plants		
Turnip greens	50–100 lb.	5-10 feet		
Turnip roots	50–100 lb.	5-10 feet		
Watermelon	40 fruits	2–4 hills		

KANSAS STATE UNIVERSITY AGRICULTURAL EXPERIMENT STATION AND COOPERATIVE EXTENSION SERVICE

Creat	Type of	Days to	Plants or Seeds	Days to	Optimum Temperature	Depth of Planting	Avg. Spacing Within Row	Avg. Spacing Between Rows	Frost
Сгор	Planting	First Harvest	Per 100 Row	Germinate	(F)	(In.)	(In.)	(In.)	Resistance
Asparagus	Perennial (Crowns)	2nd Season	75	—	—	8	18	48	Hardy
Asparagus	Seed (Transplant)	4th Season	2 oz.	10-20	65-75	1	3	6	Hardy
Rhubarb	Perennial (Crowns)	2nd Season	30	—	—	Ι	36	35-48	Hardy
Beans Snap	Seeded	50-60	¹ /₂ Ib .	5-8	70-85	2	3-4	36	Tender
Beans—Lima	Seeded	65-75	¹ /₂ Ib .	5-8	75-85	2	4-8	36	Tender
Beets	Seeded	55 -65	2 oz.	7–10	50-60	1/2	2-4	18	Half-Hardy
Broccoli	Seed or Transplant	60-80*	¹ / ₂ oz. or 75	(6-8)	(50-60)	(1/2)	18-24	36	Hardy
Brussels Sprouts	Seed or Transplant	85-95*	¹ / ₂ oz. or 100	(6-8)	(50-60)	(1/2)	12-18	36	Hardy
Cabbage	Seed or Transplant	65-80*	¹ / ₂ oz. or 75	(6-8)	(50-60)	(1/2)	12-18	36	Hardy
Chinese Cabbage	Seeded	80-90	¹ / ₄ OZ.	5-7	55-70	1/2	10-12	36	Hardy
Carrots	Seeded	70-80	1 oz.	10-12	55-70	1/2	2-3	18	Half-Hardy
Cauliflower	Seed or Transplant	85-100*	¹ / ₂ oz. or 75	(6-8)	(55-70)	$(\frac{1}{2})$	18-24	36	Half-Hardy
Cucumbers	Seed or Plants	60-65	$\frac{1}{2}$ OZ.	5-8	75-85	$\frac{1}{2} - 1$	10-48	48-72	Verv Tender
Eggplant	Transplants	75-90*	50 plants	(8-12)	(75 - 85)	_	18-24	36	Very Tender
Garlic	Sets	140-160	3 lbs.	<u> </u>		1	4-6	18-36	Hardy
Horseradish	Roots	Fall	75–100 roots			3-4	12-18	36	Hardy
Kale	Seeded	60-90	1 07	6-9	50-60	1/2	2-4	36	Hardy
Kohlrahi	Seed or Transplant	60-75	¹ / ₄ 07	(6-8)	(50-60)	(¹ / ₂)	5-6	18-24	Hardy
Lettuce (Seed)	Seeded	45-50	¹ / ₂ 07	(0°0) 6-8	(00 00) 50_70	1/4	2_4	18_24	Half-Hardy
Lettuce (Plants)	Transplants	35_45	7202. 100_200 plants	(6_8)	(50-70)	(1/4)	2_4	18_24	Half-Hardy
Head Lettuce	Sood or Transplants	55 45 s60_85*	100 200 plants $1^{1/2} \text{ oz or } 75$	(0°0) 6_8	(30 70) 60_70	(74)	2 4 19_15	18_24	Half-Hardy
Muskmalon	Soud or Plants	800-05 80 00	1/202.0175	0-0 7 19	75 85	1 114	12-13	10-24	Vory Tondor
Mustard	Seed of Flams	50 60	72 02. 1/.	6 8	7J-8J 50 60	1-1/2	40-72	40-72	Hardy
Opion (Sate)	Sote	100 120	⁷⁴ 9 ats	0-0	30-00	11/2 9	2 1	10-24	Hardy
Onion (Denta)	Trancolonta	100-120	2 yrs.	_		1/2 - 2	3-4	12-24	Hardy
Olino (Plants)	Transplains	100-120		 C19	75 95	172-2	3-4 10 91	12-24	пагиу Tandan
Damilari	Seeded	30-00 co 70	2 02.	0-12	73-83 FF 70	72 17	10-24	30 10 94	Tender Half Handar
Parsiey	Seeded	00-70 E.II	1/2	8-10	55-70 55-70	⁻ /2	2-4	18-24	Half-Hardy
Parsnip	Seeded		^{7/2} OZ.	10-12	55-70	¹ /4 ⁻¹ /2	3-4	18-24	Half-Hardy
Peas	Seeded	00-80	I ID.	7 - 10	30-03	2	1-2	12-24	Hardy
Peppers	Transplants	65-80*	50 plants	(10–14)	(75-85)	(1/2)	18-24	36	Tender
Potatoes	Tuber Pieces	70-90	10 lbs.	<u> </u>	50-60	2-3	8-12	36	Half-Hardy
Pumpkin	Seeded	110-130	1 oz.	7-10	/5-85	1	72-90	72-90	Half-Tender
Radish	Seeded	25-30	l oz.	4-6	50-60	1/2	2-3	12-18	Hardy
Rutabaga	Seeded	90-120	¹ / ₂ OZ.	5-10	50-60	1/2	4-6	18-24	Hardy
Salsify	Seeded	140–150	1 oz.	8-12	55-70	1/2	2–3	12–18	Half-Hardy
Spinach	Seeded	40-45	2 oz.	9–12	55-70	1	2–3	12–18	Half-Hardy
Squash—Summer	r Seeded	50-55	1 oz.	7–10	75-85	1	36-48	48-72	Very Tender
Squash—Winter	Seeded	50-55	1 oz.	7–10	75-85	1	60-72	96	Very Tender
Sweet Corn	Seeded	80-100	$\frac{1}{2}$ Ib.	6-8	70-80	2	14–18	36	Tender
Sweetpotatoes	Plants	130-140	75–100 plants	_	_	_	12-16	36-48	Very Tender
Swiss Chard	Seeded	50-60	1 oz.	9–12	55-70	¹ / ₂₋ 1	6-8	18-24	Half-Tender
Tomato	Transplants	70-85	30–60 plants	(7–10)	(75–85)	(1/2)	24-48	36-48	Tender
Tomato	Direct Seeded	80-95	¹ / ₄ OZ.	7–10	75-85	1/2	24-48	36-42	Tender
Turnips	Seeded	45-65	1 oz.	5-10	60-70	1/2	3-4	12-18	Hardy
Watermelon	Seeded	80-90	1 oz.	8-12	80-90	1–2	72-90	72-90	Very Tender

Vegetable Crop Information

() = Seeding information for hotbed; allow 6–8 weeks in hotbed or greenhouse.
* From date of transplanting.



Common Garden Problems				
Symptom	Possible Causes	Corrective Measures		
Plants stunted in growth; yellow color	Lack of soil fertility or soil pH abnormal	Use fertilizer and correct pH according to soil test. Use 3 to 4 pounds of complete fertilizer per 1 square feet in absence of soil test.		
	Plants growing in compacted, poorly- drained soil.	Modify soil with organic matter or coarse sand.		
	Insect or disease damage	Use a regular spray or dust program.		
	Poor-quality seed or plants	Use high-quality seed or plants of recommended varieties.		
Plants stunted in growth; sickly, purplish color	Low temperature	Plant at proper time. Don't use light- colored mulch too early in the season.		
Holes in leaves; leaves yellowish and drooping, or distorted in shape	Insect damage	Use recommended insecticides.		
Plant leaves with spots; dead, dried areas; or powdery or rusty areas	Plant disease	Use resistant varieties, remove diseased plants when they are noticed, and use a regular spray.		
Plants wilt even though water is present	Soluble salts too high or root system damage	Have soil tested. Use soil insecticides.		
Plants with weak root systems	Poor drainage	Use organic matter or sand in soil.		
	Insect or nematode damage	Use recommended varieties and soil insecticides.		
Plants tall, spindly and unproductive	Excessive shade	Relocate to sunny area. Keep weeds down.		
	Excessive nitrogen	Reduce applications of nitrogen		
Blossom drop	Hot, dry periods	Use mulch and water.		
	Low night temperatures	Avoid planting too early in spring.		
	Overwatering or disease	Stop watering or use regular spray program.		
Tomato leaf roll	Excessive pruning or soil moisture fluctuations	Remove suckers when small. Use mulches.		
Leathery, dry, brown blemish on the blossom end of tomato fruit	Blossom end rot	Maintain a uniform soil moisture supply. Avoid overwatering and excessive nitrogen.		
 Steps to a More Successful Home Use mulches to conserve moisture, and reduce rots. Keep plants free of insects and dise Examine plants often to keep ahead problems. Keep weeds out. Remove tomato suckers as soon as inches long). 	Garden control weedsSample soil and years.ases. l of potential• Apply fertilizer manner.• Thin when plan • Avoid excessive when the foliagthey form (1 to 2• Wash and clear	I have it tested every three to four to garden area in recommended nts are small. e walking and working in the garden ge and soil are wet. n sprayer well after each use.		
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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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