

VEGETABLE PRODUCTION GUIDE

Crop	Botanical Name	Seed/ha	Seedling		Germination Temp. (°C)	Days	Seedling Depth (cm)	Spacing (cm)		Opt. Growth Temp. (°C)	Plants/ha	Yield (t/ha)	Days to Maturity	Harvest duration (days)	Root Depth (cm)	Irrigation/Part of Season			Withdrawal Norms before product			Leaf Norms (%)			Micro Element Symbols	Soil pH (pH)	Soil types	Recommended Varieties	Important Pathological and Physiological Diseases
			Direct (kg)	Transplanted (kg)				In Rows	Between Rows							Total H <sub>2</sub> O (mm)	First (mm/week)	Second (mm/week)	N	P	K	N	P	K					
Baby cabbragend cabbage, savoy, green cabbage)	<i>Brassica oleracea</i> spp.	200 000 - 300 000	-	-	20-22	6.0-10	0.5-1.5	40-70	60-90	15-20	30 000 - 40 000	60-80	70-100	15	45-60	440	30	38	3.4	0.6	3.6	3.4	0.5	4	B, Mo	5.5-6.8	all loamy	Red Sky, Sir Admiral, Capricorn	BR, FY, DM, PM
Baby gem	<i>Cucurbitaceae pepo</i>	5000	4.0-5.0	-	22	7	2.0-3.0	50-70	120-150	20-24	10 000 - 17 000	20-25	30	2 mths	90	350	25	40	7.09	0.43	5.53	3.25	0.65	2.5	B, Mo	5.5-6.8	all loamy	Eight ball, Star 801, Pinnacle	PM, DM, BR
Baby marrow	<i>Cucurbitaceae pepo</i>	5000	4.0-5.0	-	22	7	2.0-3.0	50-70	120-150	20-24	10 000 - 17 000	20-24	30	2 mths	90	350	25	40	7.09	0.43	5.53	3.25	0.65	2.5	B, Mo	5.5-6.8	all loamy	Assada, Star 802, 802 Terminator	PM, DM, BR
Green Beans	<i>Phaseolus vulgaris</i>	4 500	50-70	-	28	7	1.0-2.0	5.0-10	40-60	15-20	150 000 - 500 000	12.0-20	60-80	10.0-20	60-100	320	25	35	8.5	0.85	5.8	5	0.5	4	Mo, Mn, Zn, Fe	5.5-6.8	loamy sand, sandy loam, sandy clay	Vista Star 205, Douglas, Escalade, Resemba, Thelava	PM, A, BM, V, CB
Beetroot	<i>Beta vulgaris</i> var. <i>conditiva</i>	50 000 - 60 000	4.0-5.0	-	20	7	1.5-2.5	5.0-10	30-40	15-20	170 000 - 320 000	25-40	55-60	30	45-60	340	20	40	2.9	0.5	6.9	4	0.35	4	Ca, Mg, Mn, B	6-6.8	loamy sand, sandy loam	Raddoh, Red Ace, Red Adia, Globe Dark Red, Lorett, Fakon, Star 1105	Ph, FR, S, DM
Broccoli	<i>Brassica oleracea</i> var. <i>conditiva</i>	220 000 - 320 000	0.2-0.6	-	22	5	1-1.5	25-50	45-60	15-25	30 000 - 40 000	8.0-15	65-120	14	45-60	440	30	38	8.5	1.7	9.22	4.8	1	4	Fe, Mo	6-6.8	loamy sand, sandy loam, sandy clay	Gen. Rambo	BR, FY, DM, PM
Cabbage	<i>Brassica oleracea</i> var. <i>capitata</i>	280 000 - 320 000	0.7	-	20-22	6.0-10	0.5-1.5	40-70	60-90	15-20	30 000 - 40 000	60-80	70-100	15	45-60	440	30	38	3.4	0.6	3.6	3.4	0.5	4	B, Mo	5.5-6.8	all loamy	Comptander, Hercules, Moana, Optima, Star 111, Star 1115	BR, FY, DM, PM
Carrot	<i>Daucus carota</i>	800 000 - 1 100 000	0.8-1.5	-	24	6	1-1.5	3.0-8.0	30-50	15-20	150 000 - 250 000	24-50	30-120	90-120	30-40	200	40	30	4	0.75	4.8	3	0.35	5.5	-	5.5-6.8	sandy loamy	Scarlet Nantes, Nantes, Major	S, DM, BR
Chilliflower	<i>Brassica oleracea</i> var. <i>botrytis</i>	250 000 - 350 000	0.1	-	20-22	6.0-10	0.5-1.5	40-70	60-90	15-25	16 000 - 40 000	30-70	30-145	21	45-60	440	30	38	8.5	1.7	9.22	3.5	0.1	2	Fe, B, Mn	6-6.8	all loamy	Tekay	BR, FY, DM, PM
Cucumber	<i>Cucumis sativus</i>	75 000	1.0	0.5	25	4	3	45-60	120-150	20-24	12 000 - 14 000	25-35	55-70	30-60	45	420	25	35	6.11	1.12	6.89	3.25	0.45	2.5	-	5.5-6.8	all loamy	Diaber II, Cherokee 7, Sweet Slice, Dorton	S, PM, DM, FR, S, CMV, WMV
Eggplant	<i>Solanum melongena</i>	210 000 - 230 000	0.75-1.0	-	29	10	1	46-60	60-70	22-30	22 000 - 35 000	25-30	70-90	30	55-120	600	25	35	6.2	0.5	6.2	3.5	0.55	3	-	5.5-6.8	all loamy	Kohari	V, Ph, TMV
Onion	<i>Allium cepa</i>	280 000 - 300 000	4.0-4.5	5.0	20	7	1.5	5.0-8.0	20-30	12.0-24	500 000 - 800 000	30-70	6-8 mths	-	45-60	600	25	35	2.85	0.63	3.88	3	0.1	3.5	Mg, Ca, Zn	6-6.8	all loamy	Texas Grown 502 PRR, Red Circle, Australian Brown	-
Springonion Pea	<i>Pisum sativum</i>	3 000 - 4 000	100-120	-	23	8	1.0-5.0	2.0-7.0	60-90	15-20	100 000 - 160 000	3.0-5.0	60-120	10.0-20	60-100	320	25	35	10	1.5	7.1	4	0.35	2.5	Mg	6-6.8	all loamy	Caradilla	F, PM, BR, PSV
Mangetout Pea	<i>Pisum sativum</i>	3 000 - 4 000	100-120	-	23	8	1.0-5.0	2.0-7.0	60-90	15-20	100 000 - 160 000	5.0-10	60-80	10.0-20	60-100	340	25	35	10	1.5	7.1	4	0.35	2.5	Mg	6-6.8	all loamy	Orizon	F, PM, BR, PSV
Chili Pepper	<i>capsicum annuum</i>	150 000 - 160 000	1.5	0.4-0.8	29	10	0.6-1.3	40-45	45-75	22-30	30 000 - 55 000	Dry 4.0 - 7.0	65-95	90	30-100	600	25	25	6.22	0.54	6.22	3.75	0.45	5.5	B, Ca	5.5-6.8	all loamy	Long Slim Caroten, Jalapeno, Scorpion Solo, Habanero, Birds Eye, Bala, Fury	BS, BR, TMV, PVY, FR
Green Pepper	<i>capsicum annuum</i>	150 000 - 160 000	2.0	0.4-0.8	29	10	0.6-1.3	40-45	45-75	22-30	30 000 - 55 000	24-28	65-95	15	70	600	25	25	6.22	0.54	6.22	3.75	0.45	5.5	B, Ca	5.5-6.8	all loamy	Jalapeno Revolution, Balastr, Jala, Capricorn, California Wonder	BS, BR, TMV, PVY, FR
Pea	<i>Solanum tuberosum</i>	36000-44000	15-20	-	20	8	10.0-15.0	30-40	60-100	22-24	36000-44000	30-40	60-120	-	500-600	600	25	25	6.5	0.54	6.22	6	0.4	5	B, Ca	5.5-6.9	all loamy	Manchal Sita, Pusa	-
Spinach	<i>spinacia oleracea</i>	100 000	10.0-14.0	-	20	8	3	7.0-15	30-45	15-24	150 000 - 340 000	15-20	4-5 mths	4-5 mths	45-60	375	25	35	5	0.6	5	5	0.4	4	Mg, Ca, Mo	6-6.8	all loamy	Feedback Giant, Montreal	R, DM, PM
Patty pan	<i>Cucurbitaceae pepo</i>	8 000	1.5-2.0	-	23	7	2.0-3.0	50-70	120-150	20-24	10 000 - 17 000	20-25	30	2 mths	90	350	25	40	7.09	0.43	5.53	3.25	0.65	2.5	B, Mo	5.5-6.8	all loamy	Southstar, Summerstar, Starship	PM, DM, BR
Squash (butternut)	<i>Cucurbitaceae pepo (moschata)</i>	9 000	1.5-2.0	-	23	7	2.0-3.0	50-70	150-200	20-24	5 000 - 10 000	20-30	35-90	21	90	350	25	40	7.09	0.43	5.53	3.25	0.65	2.5	B, Mo	5.5-6.8	all loamy	William, Shiba, Phoenix, Adia, Frisco, Quantum, Babara, Pinta, Galda	PM, DM, BR
Sweetcorn	<i>Zea mays saccharata</i>	7 000 - 10 000	8.0-10	-	30	7	2-2.5	10.0-20	45-120	20-24	55 000 - 70 000	10.0-20	60-80	14	45-60	400	25	35	10	3	4.5	3.5	0.25	2.2	B, Zn	5.5-6.8	all loamy	Gladiator	R, S, CT, B, N, CT, B, SW
Baby corn	<i>Zea mays saccharata</i>	4 500 - 5 500	10.0-15	-	26	7	2.0-4.0	10.0-20	75-120	15-24	55 000 - 70 000	10.0-20	60-80	14	45-60	400	25	35	10	3	4.5	3.5	0.25	2.2	B, Zn	5.5-6.8	all loamy	Pop 12, The Gold	R, S, CT, B, N, CT, B, SW
Swisschard	<i>Beta vulgaris</i> var. <i>flavescens</i>	40 000 - 60 000	5.0	0.1-0.5	20	8	3	7.0-15	30-45	15-24	150 000 - 340 000	15-20	20-30	4-5 mths	45-60	375	25	35	5	0.6	5	5	0.4	4	Mg, Ca, Mo	6-6.8	all loamy	Feedback Giant	R, DM, PM
Tomato	<i>Solanum lycopersicon</i>	300 000 - 600 000	0.1	0.05-0.10	20	8	0.6-1.3	24-30	100-140	22-24	22 000 - 40 000	60-100	60-120	14-30	45-60	600	30	45	3	0.35	1.67	4	0.6	4	Fe, B, Mn	5.4-6.8	all loamy	HTX 11, Chilli, Disco, Star 900, Star 906, Star 907, Dorian, Sentinel, Summer Supreme	BS, BW, R, BS, FR, Z, N, V, BR, TSWV, ASC, BR
Watermelon	<i>Citrullus lanatus</i>	14 000 - 20 000	1.0-2.0	0.5-0.8	30	5	2-2.5	90-150	180-300	22-30	6 000 - 35 000	30-60	60-90	20-30	90-120	420	25	35	6.11	1.12	6.89	3.25	0.45	5	Mg, B	6-6.8	all loamy	Crimson Sweet, Akashi, Aramis, Star 906, Turbo 840	PM, DM, FR, S, A



AB	AB	AB	ABC	BC	C	BC	BC	AB	AB	AB	AB
AB	AB	AB	ABC	ABC	BC	BC	BC	AB	AB	AB	A
A	AB	AB	ABC	BC	BC	ABC	AB	AB	AB	AB	A
AB	AB	ABC	BC	BC	C	-	AB	ABC	AB	AB	A
ABC	ABC	ABC	B	B	-	-	ABC	ABC	ABC	ABC	ABC
ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	-	-	-
AB	AB	AB	ABC	ABC	ABC	ABC	ABC	AB	AB	AB	A
A	B	B	C	C	C	C	B	AB	A	A	A
AB	AB	AB	AB	ABC	ABC	ABC	ABC	AB	AB	AB	A
AB	AB	ABC	BC	BC	BC	C	BC	ABC	ABC	AB	AB
A	AB	B	BC	BC	BC	BC	AB	AB	AB	AB	A

