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## Crop Guide – Cucurbits

PLEASE REMEMBER TO ALWAYS READ THE LABEL BEFORE USING ANY CHEMICAL

**Cucurbits** - this group of crops includes pumpkins, squashes, vegetable marrows, cucumbers, musk and sweet melons, and watermelons, as well as loofah, calabash and various gourds.

### CLIMATE REQUIREMENTS

- The minimum soil temperature for good germination is approximately 18°C, and the maximum 30°C to 35°C. Seed germinates relatively poorly at temperatures below 15°C and such temperatures also retard root growth. All cucurbits are sensitive to frost. Almost no growth takes place at temperatures below 15°C, but is rapid between 18°C and 30°C.
- Plants grow more luxuriantly at higher temperatures. However, relatively low temperatures and short daylight periods promote the formation of more female, in relation to male, flowers; while at high temperatures (35°C or more) only male flowers may be formed. There is poor pollination of female flowers when temperatures drop below 10°C for pumpkins and squashes, 15°C for watermelons and cucumbers and 20°C for muskmelons; higher temperatures tend to promote pollination.
- High atmospheric humidity, especially in the later growing stages, and particularly for muskmelons and watermelons, favour the development of fungal diseases. Prolonged cool, cloudy or moist weather over the flowering season will often reduce bee activity, and result in poor pollination of flowers and a reduced fruit-set.

### SOILS

- Sandy loam to loam soils, with a clay content of 15% to 30% clay, which are well-drained to a depth of 900 mm, or more, are ideal. The minimum soil depth is 450 mm. The surface of heavier soil types tends to remain damp too long and may promote fruit rots.

### PLANT SPACING AND SEEDING RATES/HA

- Pumpkins and Hubbards - 500 mm x 2,0 to 2,7 m (4 to 6 kg)
- Butternuts, Gems and Table Queen - 300 to 500 mm x 1,2 to 1,8 m (2 to 3 kg)



- Cucumbers - 300 mm x 1,2 to 1,5 m (2 to 3 kg)
- Melons - 300 mm x 1,5 to 2,0 m (3 to 4 kg)
- Watermelons - 500 mm x 1,8 to 2,5 m (3 to 4 kg)
- Bush types - 300 to 500 mm x 1,2 to 1,5 m (4 to 6 kg)

### TIME OF PLANTING

- Cucurbits do not normally transplant easily, so are usually direct-seeded in the land. Often 2 to 4 seeds are planted on each site and excess plants later thinned out.
- Occasionally, use is made of young seedlings, especially for squashes and marrows, where early crops are wanted in cooler areas; seeding rate for this purpose varies from 1 to 3 kg per ha.
- Planting in cooler areas should be delayed until after the last frosts, and when the soil has warmed up to at least 18°C. The crop should be harvested before the first frosts of winter

### IRRIGATION

- The soil should be kept fairly moist until the crop has emerged.
- To encourage deep rooting the soil should, during the first third of the growing period, be wet to a depth of 450 mm, whenever 90% of the available soil moisture has been depleted. Thereafter, allow only 50% depletion before wetting the soil to a depth of 600 mm. Adequate watering from flowering onward is most important.

### Fertilizer Program

*This is a broad outline for the fertilization of chillies. Recommendations will vary depending on specific soil samples.*

Growth Stage	Kynosol Root	6.28.23	17-0-17	Calcium Nitrate	S.O.P	Veggie Start	Veggie Grow	Veggie Fruit	KynoFulvate	N	P2O5	K2O	Ca	Mg	S
Planting	5lt/ha														
Planting		400kgs/ha								24	108	52			22
Week 2			80kgs/ha	80kgs/ha		2kgs/ha			1kg/ha	26		13.6	15.2	0.8	6.4
Week 4			80kgs/ha	80kgs/ha	60kgs/ha		2kgs/ha		1kg/ha	26		44	15.2	0.8	17.2
Week 6			80kgs/ha	80kgs/ha				2kgs/ha	1kg/ha	26		13.6	15.2	0.8	6.4

Week 8			80kgs/ha	80kgs/ha	60kgs/ha			2kgs/ha	1kg/ha	26		44	15.2	0.8	17.2
Totals	5lts/ha	400kgs/ha	320kgs/ha	320kgs/ha	120kgs/ha	2kgs/ha	2kgs/ha	4kgs/ha	4kgs/ha	128	108	167.2	60.8	3.2	69.2

## Fertilizer Program

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### PLANT

*Use NPK 6.28.23 at 700-800/ha depending on soil analysis*

GROWTH STAGE	6.28.23	GREENGOLD	UNICA CALCIUM	Fertilizer Leaf Sprays				N	P2O5	K2O	Ca	Mg	S	B
				VEGGIE STARTER	VEGGIE GROW	VEGGIE FRUIT	KYNOBOR							
Planting	700kgs/ha							42	196	161			42	1.05
Week 3				2kg/ha										
Week 4		100kg/ha						30			9.6			0.16
Week 5					2kg/ha									
Week 6			100kg/ha					14.5		35	9			0.15
Week 7						2kg/ha	750g							
Week 8			100kg/ha					14.5		35	9			0.15
Week 10						3kg/ha								
Week 12			100kg/ha					14.5		35	9			0.15
<b>TOTAL</b>	<b>700kg/ha</b>	<b>100kg/ha</b>	<b>300kg/ha</b>	<b>2kg/ha</b>	<b>2kg/ha</b>	<b>5kg/ha</b>	<b>750g/ha</b>	<b>116</b>	<b>196</b>	<b>266</b>	<b>36.6</b>	<b>0</b>	<b>42</b>	<b>1.66</b>

## Chemical Program

WEED CONTROL	HERBICIDE	RATE/HA	APPLICATION
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ANNUAL GRASSES	FOCUS ULTRA	1,4 – 2.0lts/ha	Post emergent
ANNUAL GRASSES	FUSILADE	0.8 - 1.25lts/ha	Post emergent
ANNUAL GRASSES	MAGQUAT	2.0 – 4.0lts/ha	Pre emergent

PEST	PRODUCT	RATE/HA	TIMING
MELON APHIDS	ACETAMIPRID	100g/ha	First sign of pest
	MAGMECTIN ULTRA DUO	250mls/ha	First sign of pest
	ACTARA	100 – 200g/ha	First sign of pest
	KARATE ZEON	200mls/ha	First sign of pest
	SIVANTO	400mls/ha	First sign of pest
CUCUMBER BEETLE	PLESIVA STAR	270g/ha	At planting
	CONFIDOR	280g/ha	At planting
	ACTARA	100 - 200g/ha	At planting
	MAGMECTIN ULTRA DUO	250mls/ha	First sign of pest
	VAYEGO	80mls/ha	First sign of pest
	AMPLIGO	250mls/ha	First sign of pest
	KARATE ZEON	200mls/ha	First sign of pest
	DECIS FORTE	100mls/ha	First sign of pest
SQUASH BEETLE	PLESIVA STAR	270g/ha	At planting
	CONFIDOR	280g/ha	At planting
	ACTARA	100 - 200g/ha	At planting
	MAGMECTIN ULTRA DUO	250mls/ha	First sign of pest
	VAYEGO	80mls/ha	First sign of pest
	AMPLIGO	250mls/ha	First sign of pest
	KARATE ZEON	200mls/ha	First sign of pest
	DECIS FORTE	100mls/ha	First sign of pest
PICKLE WORMS	PLESIVA STAR	270g/ha	At planting
	AMPLIGO	250mls/ha	First sign of pest
SQUASH VINE BORER	PLESIVA STAR	270g/ha	At planting
	AMPLIGO	250mls/ha	First sign of pest

SQUASH BUGS	PLESIVA STAR	270g/ha	At planting
	AMPLIGO	250mls/ha	First sign of pest
SPIDER MITES	OBERON	600mls/ha	First sign of pest
	ABAMIPRID		First sign of pest
	DYNAMEC	560mls/ha	First sign of pest
WHITEFLY	MAGMECTIN ULTRA DUO	250mls/ha	First sign of pest
	ACETAMIPRID	100g/ha	First sign of pest

DISEASE	PRODUCT	RATE/HA	TIMING
POWDERY MILDEW	AZOXY DUO	500mls/ha	First sign of disease
	MIRAVIS DUO	750mls/ha	First sign of disease
	CABRIO DUO	2lts/ha	First sign of disease
	TWIST	250mls/ha	First sign of disease
DOWNY MILDEW	RIDOMYL GOLD	2.5kgs/ha	First sign of disease
	INFINITO	1.6lts/ha	First sign of disease
	ORANDIS	500mls/ha	First sign of disease
BACTERIAL FRUIT ROT	CABRIO DUO	2lts/ha	First sign of disease
	TWIST	250mls/ha	First sign of disease