

A large, close-up photograph of a head of cauliflower with its green leaves, positioned in the center of the page. The cauliflower head is white and textured, surrounded by vibrant green leaves.

# UK Vegetable Seed



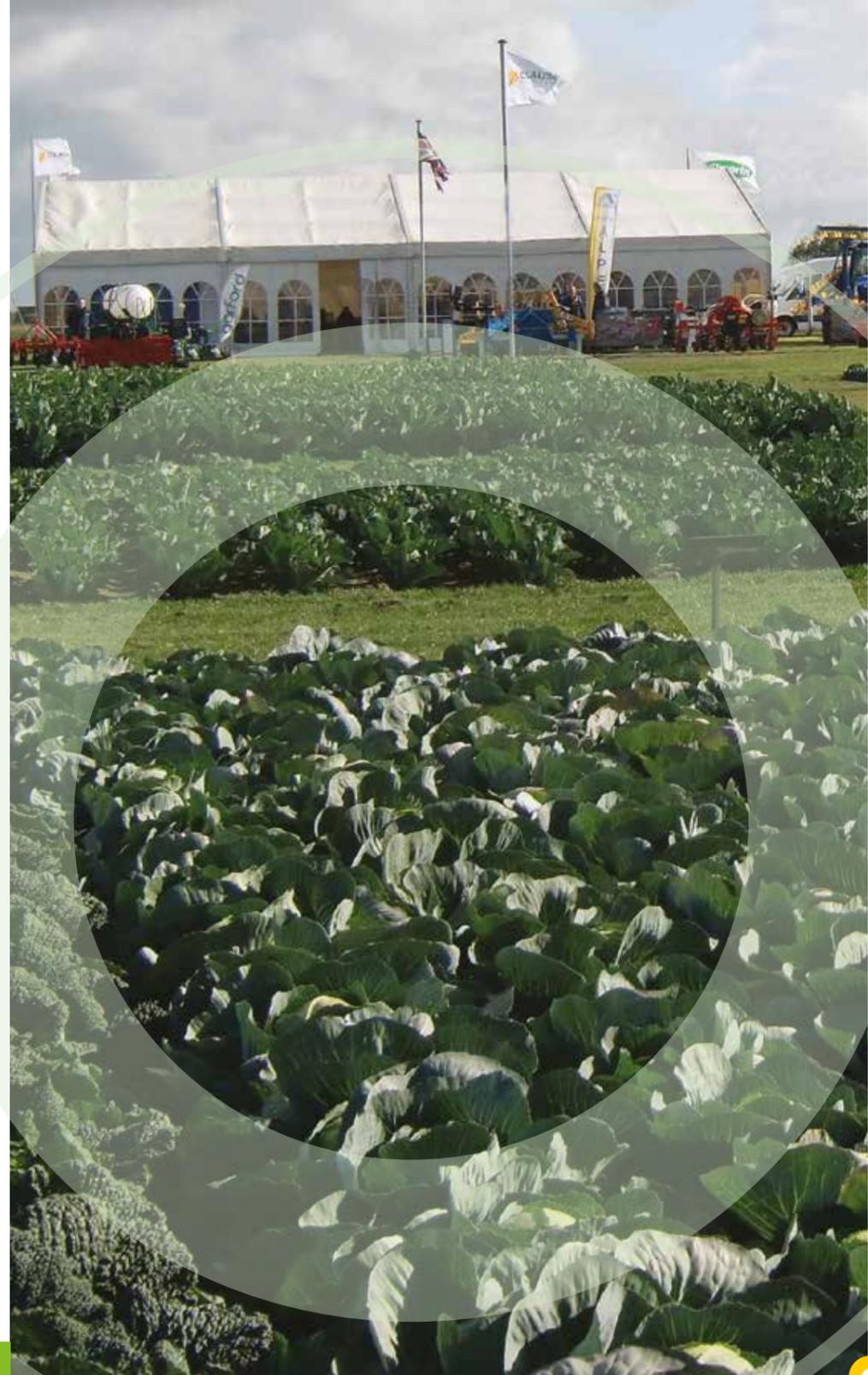
CATALOGUE  
2019 - 2020



# Clause UK 2019 and 2020 Catalogue

The Clause range of vegetable varieties is directed at professional growers, and this two-year catalogue offers the results of thorough selection processes particularly for the UK market. The experience and technological resources available as part of Groupe Limagrain provide

Clause with the ability to respond quickly to changes in customer requirements and to adapt breeding programmes whenever needed.



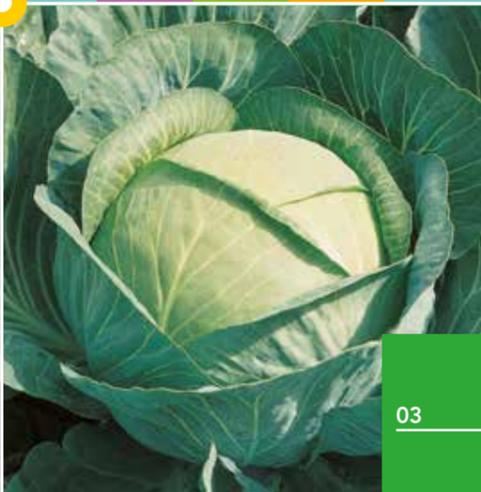
## Contents

**Cabbage** 07 - 12  
Headed, Red, White, Savoy

**Carrot** 13 - 14  
Full Season

**Cauliflower and Broccoli** 15 - 26  
Summer, Early Autumn, Late Autumn, Winter, Romanesco, Coloured Cauliflower and Broccoli

**Salads and Miscellaneous** 27 - 38  
Endive Frisée, Endive Escarole, Corn Salad, Parsley Courgettes, Pumpkins, Turnips,





# Representation throughout the United Kingdom and Ireland

## Product Development



**Commercial Manager**

**Keith Harwood**  
Mobile: 07718 805943  
keith.harwood@hazera.com



**Product Development Specialist - Roots and Field Salads**

**Andrew Brown**  
Mobile: 07584 680476  
andrew.brown@hazera.com



**Product Development Specialist - Brassicas**

**Tanya Kayes**  
Mobile: 07860 233210  
tanya.kayes@hazera.com



# Clause UK 2019 and 2020 Catalogue

Regional trials ensure that promising varieties can be fully assessed during development. The Clause range is displayed at the autumn Brassica Open Days and at other industry demonstrations of carrots, salads and courgettes. Local representatives are always available to provide advice and discuss cropping requirements.

## Sales Team



1

**Agent**  
**Ellis Luckhurst**  
Mobile: 07973 626934  
ellis@eluckhurst.co.uk



2

**Area Sales Representative**  
**Sean Leather**  
Mobile: 07860 233205  
sean.leather@hazera.com



3

**Area Sales Representative**  
**Rob Billington**  
Mobile: 07808 052593  
robert.billington@hmclause.com



4

**Area Sales Representative**  
**Nigel Hodson**  
Mobile: 07818 596286  
nigel.hodson@hazera.com

5

**Distributor**  
**Goldcrop**  
Tel: Dublin 00353 1 8438176  
Fax: Dublin 00353 1 8438945  
Mobile: 00353 87 2572855  
chris.bollard@goldcrop.ie

6

**Distributors**  
**Burkes of Cornascribe**  
151 Markethill Road, Portadown, County Armagh BT23 5PH  
BT62 35L  
Tel: 02838 840225  
Fax: 02838 841655

**Trevor Gabbie**  
15 Ballymaleddy Road, Comber, County Down BT23 5PH  
Tel: 02891 872077  
Tel: 02891 870469

## Head Office and Communications



**Head Office Operations Manager**

**Trevor Shaw**  
Tel: 01472 371490  
Fax: 01472 371478  
trevor.shaw@hmclause.com



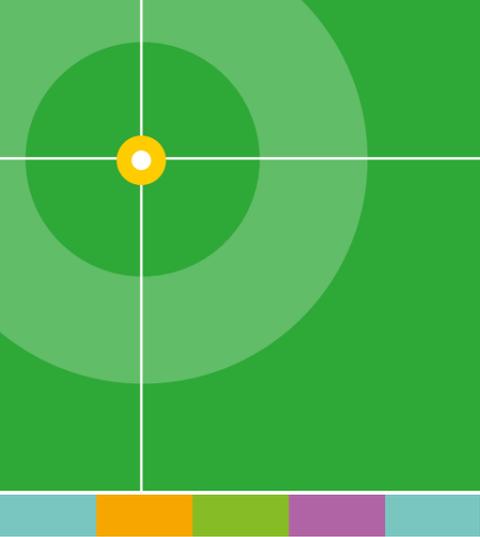
**Communications Manager**

**Leanne Hunt**  
Tel: 01472 370181  
Fax: 01472 371478  
leanne.hunt@hazera.com



**Credit Control**

**Marian Sanderson**  
Tel: 01472 371490  
Fax: 01472 371478  
marian.sanderson@hazera.com



## NEW Products

**NEW**



### SUMMER CAULIFLOWER Canopus F1

Dense, white curds with compact florets, very well-suited to floretting.

### WINTER CAULIFLOWER Mengwenn F1 (CLX33611)

Produces a very clean, healthy and uniform crop of dense, white curds that can be harvested in a few cuts.

### WINTER CAULIFLOWER Aureo F1 (CLX33612)

Very promising hybrid which maintains its curd quality very well under higher temperatures at harvest.

### ROMANESCO CAULIFLOWER Cornelio F1

Healthy and good against mildew.

### ROMANESCO CAULIFLOWER Tullio F1

Very clean and good against mildew.

### BROCCOLI Kimono F1

Early summer variety, producing highly uniform plants and large, heavy heads with good density.



### CORN SALAD Festival

Complements Gala especially in late spring and late summer when it grows slightly faster.

### PUMPKINS Kratos F1

Very large Halloween type fruits weighing up to 10kg in a 30-35cm diameter.

### TURNIP Richelieu F1

Good frost tolerance for winter harvest.

### SWEETCORN Turbine F1

Relative maturity 70 days.

### SWEETCORN Liskam F1

Relative maturity 77 days.



# Cabbage

Headed Cabbage.....	08 - 09
White Cabbage.....	10 - 11
Savoy Cabbage.....	12

# HEADED CABBAGE

## Summer Primo and Red

### CONSTABLE F1

The earliest Clause Primo cabbage.

Very uniform head size, good holding for an early variety. Ideal in continuity with Altess F1 for an early programme. Sown in October for late May harvest.



### ALTESS F1

Early summer variety with excellent field-holding and splitting resistance.

High marketable yield of round, dark green 1kg heads on a compact frame. Heads are pre-pack quality and successive production can be achieved from June to September. Suitable for October sowing.



### CHANCELOR F1

Second early compact primo for summer and autumn, bred for supermarket presentation.

Top quality heads are shiny, dark green and very smooth with a short core, giving a high percentage of usable material. Clean, healthy plants with good field-holding. Suitable for October sowing.



### SIR F1

Early, vigorous and uniform, making good weight even in drought conditions.

Round, dark green, densely packed 1.0kg-1.2kg heads with short core and easy to harvest. Good tolerance to mildew and other foliage diseases and good field-holding.



### REDCAP F1

Very early and uniform, ready in late June from first plantings.

Round to oval 1.5kg-1.8kg, deep red heads with good density. Compact frame, reduced outer foliage on a medium stem, allowing easy cutting and preparation.



### REDCAP F1

Deep red 1.2kg-1.8kg heads with very good storage ability.

Attractive internal colour and very round heads. Strong colour makes it ideal for fresh and processing use.



VARIETY	MONTHS												APPROX. DAYS PLANT TO 50% CUT	AVERAGE HEAD WEIGHT IN KG	RECOMMENDED DENSITIES					
	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN			FEB	MAR	APR	MAY	PLANTS PER ACRE	PLANT SPACING IN CM
<b>FIRST EARLY</b>																				
CONSTABLE F1	■	■	■	■	■	■	■	■	■	■							59-69	0.7-0.9	25,000	46x35
ALTESS F1	■	■	■	■	■	■	■	■	■	■							59-69	0.7-0.9	25,000	46x35
<b>SECOND EARLY</b>																				
CHANCELOR F1			■	■	■	■	■	■	■	■	■	■					69-79	0.6-0.8	25,000	46x35
SIR F1			■	■	■	■	■	■	■	■	■	■					72-83	1.0-1.2	25,000	46x40
<b>VERY EARLY RED</b>																				
REDCAP F1	■	■	■	■	■	■	■	■	■	■	■	■					90-110	1.0-1.5	25,000	51x35
REDCAP F1			■	■	■	■	■	■	■	■	■	■	■	■	■	■	130-140	1.2-1.8	25,000	61x61

■ SOWING  
■ SOWING SEASON DEPENDENT

■ HARVEST  
■ HARVEST EXTENSION BY INDOOR STORAGE

**EARLINESS VARIATIONS**  
 October sowings entail bolting risks and larger modules  
 January sowings need heated glass  
 February sowings no heat, season dependent  
 March plantings best and safer with fleece to counter frost risk

Table based on 8 - 9 week modules for early, and 6 week for later.

# WHITE CABBAGE Fresh Market and Processing

## GUARD F1

Compact 1kg heads and erect frame ideal for high-density plantings. Round and smooth with excellent internal structure and short core. Good against mildew with long storage potential, allowing marketing flexibility.



## KAPORAL F1

Fast growing and productive variety with a short stem. Large, uniform plant frame and head size. Very white, medium-coarse to fine internal structure. Good field-holding.



## BRIGADIER F1

Good field-holding provides marketing flexibility. Very uniform heads with good internal structure for processing. Large framed plants remain upright on a short stem, allowing easy harvesting.



## SQUADRON F1

Long-term storage potential until mid-August. Low losses after peeling from climate controlled stores. Round to oval, smooth heads with clean white hearts. Excellent uniformity, health and quality from the field.



VARIETY	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	APPROX. DAYS PLANT TO 50% CUT	AVERAGE HEAD WEIGHT IN KG	RECOMMENDED DENSITIES		
																			PLANTS PER ACRE	PLANT SPACING IN CM	
<b>1KG FRESH MARKET</b>																					
GUARD F1	■								■	■	■	■	■	■	■	■	■	128-138	0.8-1.2	23,000	51x35
<b>PROCESSING</b>																					
KAPORAL F1	■							■	■	■								100-110	3.5-5.0	11,000	61x61
BRIGADIER F1	■								■	■	■	■						120-130	4.0-6.5	11,000	61x61
<b>STORAGE PROCESSING</b>																					
SQUADRON F1	■								■	■	■	■	■	■	■	■	■	136-148	3.5-4.0	11,000	61x61

■ SOWING  
■ SOWING SEASON DEPENDENT

■ HARVEST  
■ HARVEST EXTENSION BY INDOOR STORAGE

**EARLINESS VARIATIONS**  
October sowings entail bolting risks and larger modules  
January sowings need heated glass  
February sowings no heat, season dependent  
March plantings best and safer with fleece to counter frost risk

Table based on 8 - 9 week modules for early, and 6 week for later.

# SAVOY CABBAGE

## CAPRICCIO F1

Reliable and consistent summer to autumn crops. Uniform, attractive fresh green heads with dark green outer leaves, good density and internal structure. Excellent for supermarket presentation.

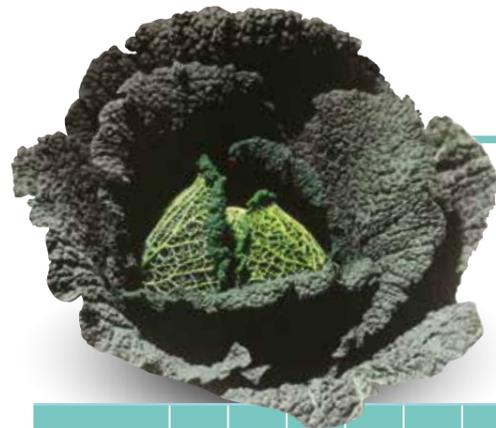
## TRAVIATA F1

Uniform, round heads with excellent density in all seasons. Heads do not become too large, and stay extremely clean. Winter hardiness and long field standing give top quality crops over a flexible programme.



## RIGOLETO F1

Extremely hardy and able to survive low winter temperatures. Tolerant of dry, hard conditions. Dark blue-green heads on a medium to large frame with semi-erect outer leaves.

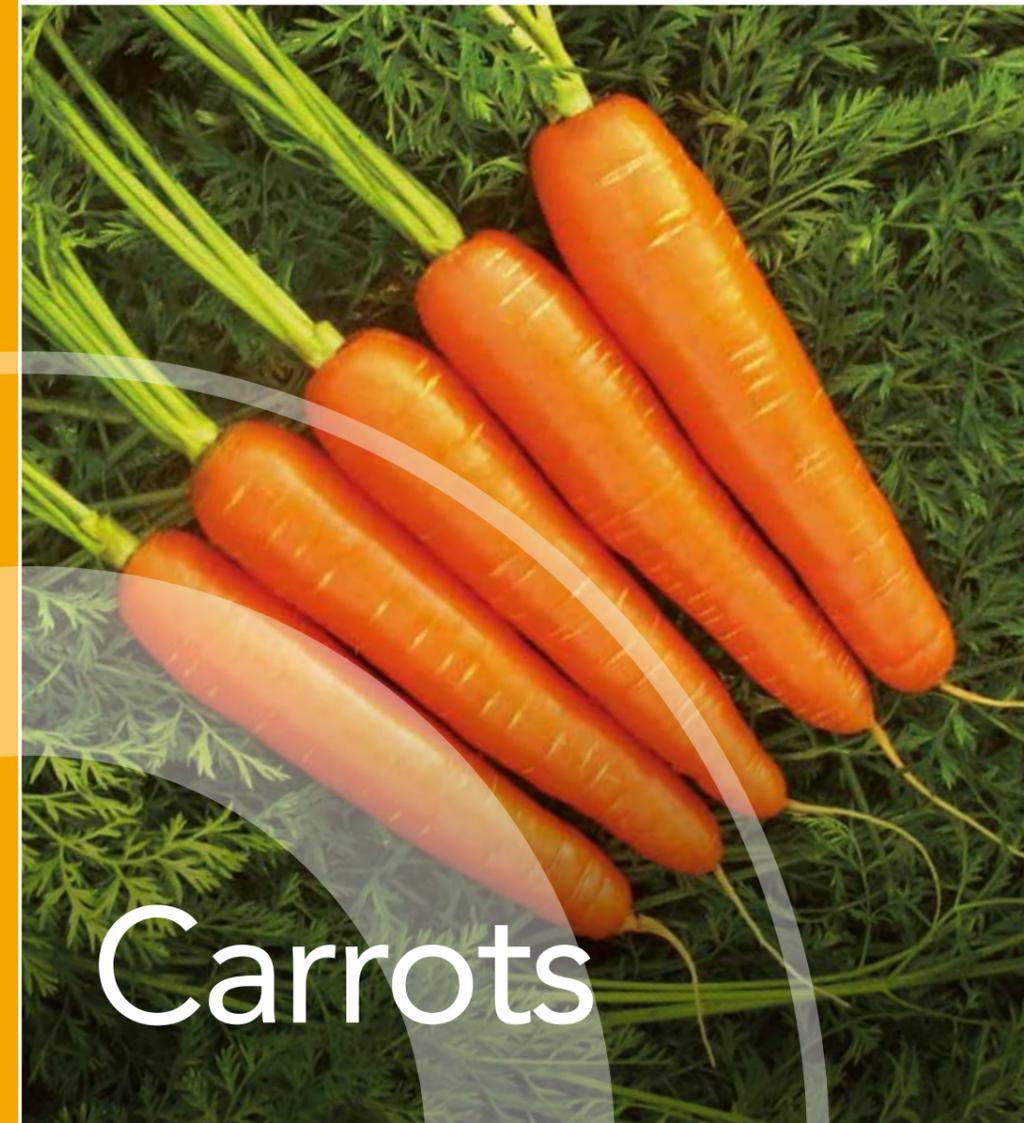


VARIETY	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APPROX. DAYS PLANT TO 50% CUT	AVERAGE HEAD WEIGHT IN KG	RECOMMENDED DENSITIES	
																	PLANTS PER ACRE	PLANT SPACING IN CM
<b>FIRST EARLY</b>																		
DAPHNE F1	■	■	■												65-73	0.7-1.1	22,000	46x40
<b>MID-SEASON</b>																		
CAPRICCIO F1		■	■	■	■										101-108	0.8-1.2	17,500	61x38
<b>AUTUMN/WINTER</b>																		
TRAVIATA F1			■	■	■										135-145	0.7-1.0	17,500	61x38
RIGOLETO F1			■	■											165-175	0.8-1.2	17,500	61x38

■ SOWING ■ SOWING SEASON DEPENDENT ■ HARVEST ■ SEASON DEPENDENT

**EARLINESS VARIATIONS**  
 October sowings entail bolting risks and larger modules  
 January sowings need heated glass  
 February sowings no heat, season dependent  
 March plantings best and safer with fleece to counter frost risk

Table based on 8 - 9 week modules for early, and 6 week for later.



# Carrots

Nantes Varieties..... 14

# CARROTS Nantes varieties for full season production

## MERCURIO F1

A cylindrical, early bulking variety for first season harvests from June to August. Flexible and uniform and ideal for bunching in the early growth phase. Well-attached foliage suitable for top lifting. High level of bolting tolerance and very cylindrical, smooth roots with good colour.



## MATCH F1

Strong, clean, long-lasting foliage and cylindrical roots with good length and strength. Flexible production for main season and storage with a top quality yield and good uniformity. Has shown excellent keeping qualities against *Sclerotinia* and other major root problems, allowing a high potential commercial pack-out. Upright foliage ensures natural ventilation and a clean crop. IR : Ps, Pv.

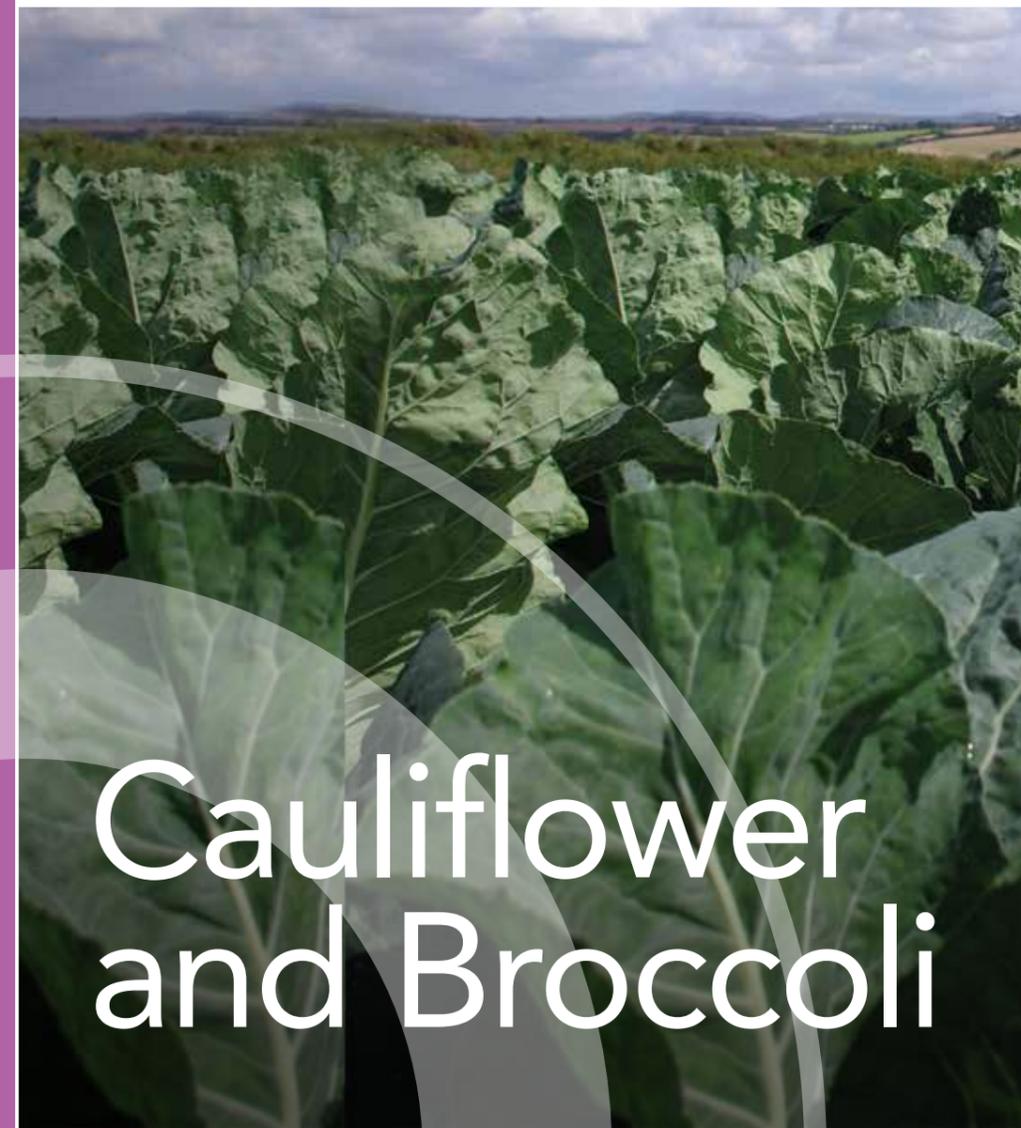


VARIETY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	LENGTH (CM)	BOLTING TOLERANCE
MERCURIO F1																	19-21	4
MATCH F1																	19-21	3

■ SOWING      ■ HARVEST  
■ SHARE LIFT / STORAGE

**EARLINESS VARIATIONS**  
 Early Season (January - February)  
 350,000 - 450,000 per acre drilled  
 Main Season (March - early May)  
 550,000 - 850,000 per acre drilled

**NOTE** Recommendations relating to technical data are based on local trials information and general experience and are a guide only. They do not necessarily imply that a successful crop will be produced under varying countryside or weather conditions and soil types.



# Cauliflower and Broccoli

Summer .....	16 - 17
Early Autumn .....	18 - 19
Late Autumn .....	20 - 21
Winter .....	22 - 24
Romanesco .....	25
Coloured and Broccoli ..	26

# SUMMER CAULIFLOWER

## MAYBACH F1

Closely grouped harvest offering high productivity and good uniformity. Sowing is for autumn only with reduced nitrogen input.



## CLIPPER F1

Excellent second early for face-packs from autumn sown crops. Uniform plants with good vigour and an erect habit, producing a taller stem for easy cutting and bagging. White curd with good density for an early type. Sowing is for autumn only with reduced nitrogen input.



## AVISO F1

A standard variety for processing throughout Europe. The extra-white, deep, heavy curds are also perfect for fresh market. Vigorous plants give excellent curd protection with mid-green, semi-erect twisting leaves. Very good disease and cold tolerance, performing well in damp conditions.

## CANOPUS F1



Dense, white curds with compact florets, very well-suited to floretting. Highly uniform, vigorous, tall, dark-green plants, allowing efficient harvest. Maintains curd quality well in summer to secure high yields.



## CHASSIRON F1

Very flexible variety that holds its maturity in difficult seasons. Extremely tolerant of heat and drought throughout June, July and August, and performs well in September and October. Produces excellent quality, smooth, very white, curds with good cover for fresh market and processing. Easy to cut and bag.

VARIETY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	APPROX. DAYS PLANT TO 50% CUT
<b>EARLY SUMMER</b>													
MAYBACH F1	■					■			■				79-89
CLIPPER F1	■					■			■				87-97
NAUTILUS F1	■					■			■				90-100
AVISO F1	■					■			■				94-104
CANOPUS F1	■					■			■				95-105
CHASSIRON F1	■					■			■				103-113
<b>SUMMER</b>													
NAUTILUS F1					■	■	■	■	■	■	■		72-82
AVISO F1					■	■	■	■	■	■	■		77-89
CANOPUS F1					■	■	■	■	■	■	■		80-90
CHASSIRON F1					■	■	■	■	■	■	■		84-96

■ SOWING (Assumes 7-8 week modules) ■ PLANTING ■ HARVEST



# EARLY AUTUMN CAULIFLOWER

## BRIGANTINE F1

Tall, vigorous, semi-erect variety for late September to October. Firm, smooth curds with good cover, suitable for fresh market and processing.



## MERIDIEN F1

Vigorous with strong foliage providing good curd cover. Heads are very dense and are particularly suited to processing. Curds hold for a long time. Excellent for late October.



## RAFALE F1

Compact with erect foliage allowing easy cutting. Closely grouped maturity and very uniform curds for high density work. First plantings in late July are recommended for mid-November to early December cutting. Two to three days earlier than Regata F1.



## REGATA F1

Extremely uniform maturity, clean bases and compact erect foliage. Provides ease of cutting and productivity at high densities. Very round, dense heads ideal for fresh market. For late work in Lincolnshire and Lancashire, but at its best for early crops in Kent and Cornwall from late July plantings.



## NARUTO F1

Very clean upright leaves make the curd easy to see, cut and bag. High quality heads are dense and heavy with good cold tolerance. Can go later than Regata F1, with plantings from mid to late July recommended for cutting late October to November.



VARIETY	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	APPROX. DAYS PLANT TO 50% CUT
AVISO F1		■	■	■	■		■	■		82-94
AVIRON F1		■	■	■	■		■	■		86-98
BRIGANTINE F1		■	■	■	■		■	■		88-100
THALASSA F1		■	■	■	■		■	■		89-103
CHASSIRON F1		■	■	■	■		■	■		90-104
MERIDIEN F1		■	■	■	■		■	■		102-112
RAFALE F1		■	■	■	■			■	■	105-115
REGATA F1			■	■	■				■	112-122
NARUTO F1			■	■	■				■	115-125

■ SOWING (Assumes 7-8 week modules)   
 ■ PLANTING   
 ■ HARVEST

# LATE AUTUMN CAULIFLOWER

## OPTIMIST F1

Medium framed, hardy plants suitable for cold, wet conditions. Erect foliage ideal for facepack presentation, and high quality, dense curds with strong twist of inner leaves. Allows continuity of production throughout November.



## DIWAN F1

Highly recommended early winter variety. Very white, deep, dense curds easy to cut and bag for face-packs. Uniform and erect with a healthy, vigorous appearance. Best planted the first two weeks of July to produce good frame and cover for mid-November to early December harvest.



## NAVALO F1

Matures three to five days later than Optimist F1, but has more erect and compact foliage that is very cold tolerant. Bred to be easy to see, cut and bag with very solid, dense curds for high quality face-packs.



## GALIOTE F1

Versatile medium to large plants with tall, erect foliage. Compact, deep curds with strong cover giving a high percentage cut. Can be planted in mid-July for December crops.



VARIETY	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	APPROX. DAYS PLANT TO 50% CUT
OPTIMIST F1		■		■				■		120-130
DIWAN F1		■		■				■		120-130
NAVALO F1		■		■				■		125-132
GALIOTE F1		■		■				■		125-132

■ SOWING (Assumes 7-8 week modules) ■ PLANTING ■ HARVEST

# WINTER CAULIFLOWER

## TRIOMPHANT F1

**Robust, semi-erect foliage gives excellent protection of the dense curds.**

Versatile and particularly suitable for early to mid-July plantings, cropping in Kent from Christmas to mid-January and in Cornwall from mid-December to mid-January. The market leader for this period.



## JUBARTE F1

**Outstanding cold weather performance with high percentage cut for January face-packs.** Good plant vigour and curds which remain solid. Very clean inner foliage.



## JEROBOAM F1

**Well-presented curds for January cropping with good field tolerance to ringspot.**

Tall, very clean, vigorous plants with excellent curd protection and cover for winter. A mid-July planting is generally ideal for most regions, providing continuity of harvest about two weeks after Triumphant F1 from one planting date.



## BRICK F1

**Excellent variety for February cutting in coastal areas.**

Produces a very uniform yield of white, semi-domed curds. Strong foliage provides good leaf cover essential for this period. Remains clean in harsh conditions. Best planted after 15th July in Cornwall.



## FLEET F1

**Similar maturity to Redoutable F1.**

Curds remain very solid and white. Good vigour in a difficult period. Well-covered heads and very uniform plants with healthy foliage. An excellent face-pack variety. *Later sowings are recommended.*



## REDOUTABLE F1

**Versatile with moderate vigour and strong, healthy foliage.**

Very uniform, dense heads ideal for low densities. In Kent, plant in mid-July for late February, or in late July for early March. Production in Cornwall is ten to fourteen days earlier depending on the season.





**NEW**

## MENGWENN F1 (CLX33611)

Produces a very clean, healthy and uniform crop of dense, white curds that can be harvested in a few cuts.

Matures April onwards and has good curd cover at a large size. Compact plants are vigorous and have an intermediate resistance to ringspot.

**NEW**

## AUREO F1 (CLX33612)

Very promising hybrid which maintains its curd quality well under higher temperatures at harvest.

Healthy and vigorous upright foliage with an intermediate resistance to ringspot. A well-fluted, tall cover makes it easy to see the curds at harvest, yet provides ample protection.



VARIETY	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	SOUTH WEST APPROX. DAYS PLANT TO 50% CUT	KENT, Lincs APPROX. DAYS PLANT TO 50% CUT
NAVALO F1													115-135	125-145
GALIOTE F1													115-135	125-145
TRIOMPHANT F1													150-170	160-180
JEROBOAM F1													160-180	170-190
JUBARTE F1													175-192	185-202
BRICK F1													195-215	205-225
FLEET F1													203-223	218-238
REDOUTABLE F1													205-225	220-240
MASCARET F1													216-236	231-251
MENGWENN F1 <b>NEW</b>													220	255
AUREO F1 <b>NEW</b>													250	270

■ SOWING (Assumes 7-8 week modules)

■ PLANTING

■ HARVEST TO INCLUDE CORNWALL, KENT, LINCOLNSHIRE



## ROMANESCO CAULIFLOWER

### CELIO F1

Early, large-framed and vigorous for summer and early autumn.

High percentage cut of top quality curds. Very low incidence of bracting normally associated with the period.

### NAVONA F1

Uniformly maturing with low incidence of bracting.

Vigorous with good field-holding for fresh market and processing. Plant mid-June to July for late September to October harvest.

### CORNELIO F1

Healthy and good against mildew.

Compact and easy to harvest, light to mid-green, narrow turreted curd. August to September harvest.

### TULLIO F1

Very clean and good against mildew.

Nice symmetrical turreted shape and good uniformity at harvest. September to November cropping.

### LAZIO F1

Extends continuity of production into late December in some areas.

Semi-erect plant habit and dark green heads, good against mildew.

### POMEZIO F1

Uniform variety with perfect conical shape.

Curds sit lower in foliage, giving protection from birds. Upright with good leaf bowl and vigour. High potential yield for late April.

VARIETY	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	APPROX. DAYS PLANT TO 50% CUT
CELIO F1														75-85
NAVONA F1														90-100
CORNELIO F1 <b>NEW</b>														90-100
GITANO F1														94-104
TULLIO F1 <b>NEW</b>														105-115
LAZIO F1														125-135
COLOSSEO F1														185-195
POMEZIO F1														220-230

■ SOWING (Assumes 7-8 week modules)

■ PLANTING

■ HARVEST

■ HARVEST FROM PREVIOUS JULY PLANTING

# COLOURED CAULIFLOWER AND BROCCOLI

## SUNSET F1

**Deep orange curds.**

For September to October crops, with best colour development being in baby-cauliflower production. Semi-upright habit, small compact frame and medium vigour.



## Broccoli

## KUBA F1

**Uniform mid-season maturity with erect, vigorous plants.**

Solid, dense, domed heads with small, blue-green beads. Has shown strong tolerance to bracting particularly in summer. Regular stem diameter for consistent head weights.



## KIMONO F1

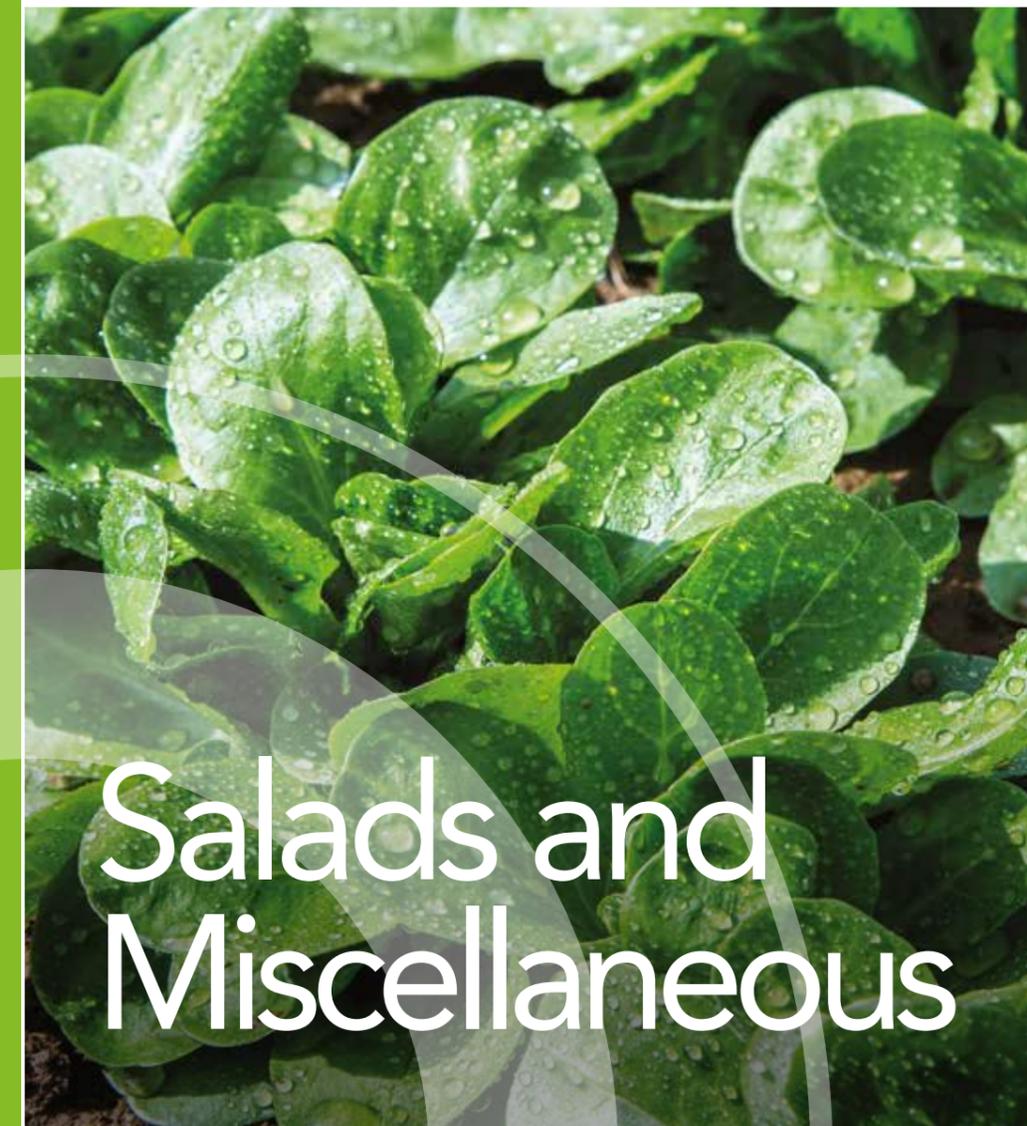
**NEW**

**Exclusively for first early, September sowings.**

Produces highly uniform plants and large, heavy heads with good density. Easy to harvest with good stem quality. Medium plant vigour enables production under cover.

VARIETY	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	APPROX. DAYS PLANT TO 50% CUT
<b>GREEN CURDED</b>												
TREVI F1												65-73
<b>ORANGE CURDED</b>												
SUNSET F1												101-108
<b>BROCCOLI</b>												
KUBA F1												85-100
KIMONO F1 <b>NEW</b>												85-100

■ SOWING   
 ■ PLANTING   
 ■ HARVEST



# Salads and Miscellaneous

Frisée Endive.....	28	Courgettes .....	32 - 33
Escarole Endive.....	29	Pumpkins.....	34 - 35
Corn Salad.....	30	Turnip .....	36 - 37
Rocket .....	31	Onions and Sweetcorn..	38
Parsley.....	31		

# FRISÉE ENDIVE

## EMILY

Erect, vigorous, medium-coarse frisée with bright green foliage.  
Very high yield from spring to autumn. Good tipburn tolerance and low susceptibility to bolting. Upright habit provides some protection against rain-splash and wind-blown dirt.



## MAGALY

Very erect plants with good bolting resistance. More compact than Emily, with serrated stems and high resistance to tipburn for late spring to autumn.



## KASSY

Extremely fine frisée type with upright habit and very high resistance to tipburn and bolting. Good field-holding and excellent head weights. Early spring to late summer production.



# ESCAROLE ENDIVE

## MARUCHKA

A flexible and erect variety with a high yield of uniform inner leaves ideal for processing. Produces good weights and blanching with lower susceptibility to tipburn and bolting. For spring to autumn cropping.



## LEMPIKA

Similar type to Maruchka, producing a large number of leaves with a fine, wavy texture providing extra 'bounce' in salad bags. Erect habit with very good bolting tolerance, harvest weight and leaf quality. Summer and early autumn cropping.



VARIETY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	LEAF TYPE
EMILY					PROTECTED CROP				HARVEST			Medium coarse	
MAGALY					PROTECTED CROP			HARVEST			Medium coarse		
KASSY					PROTECTED CROP				HARVEST			Very fine	

PROTECTED CROP HARVEST

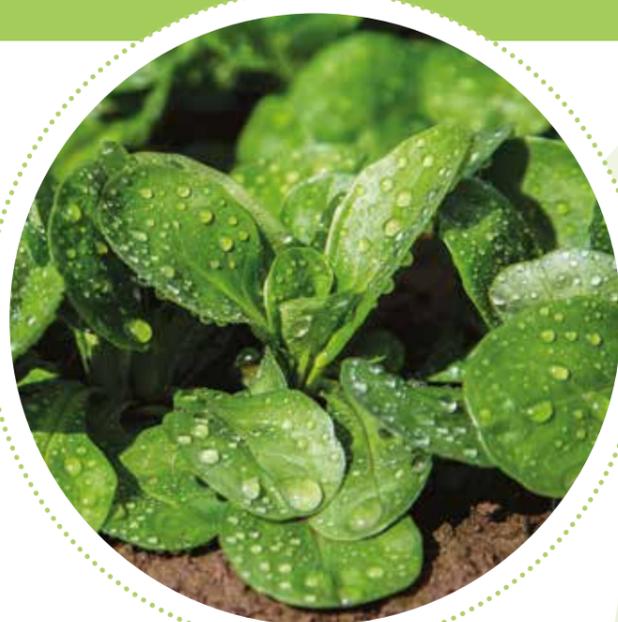
VARIETY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	LEAF TYPE
MARUCHKA					PROTECTED CROP				HARVEST			Medium coarse	
LEMIKA					PROTECTED CROP				HARVEST			Medium coarse	

PROTECTED CROP HARVEST

## CORN SALAD

### GALA

**Improved Verte de Cambrai type. Early, compact and vigorous.**  
Produces large, semi-round leaves for salad packs and fresh market. Flexible use for all year round.



**NEW**

### FESTIVAL

**Complements Gala especially in late spring and late summer when it grows slightly faster.**  
Erect and narrow foliage allows light into the base of the plant. Good leaf thickness adds weight and benefits shelf-life.



### TROPHY

**Fast growing with high yield potential.**  
Very large, round, dark green leaves with short petioles. For autumn and winter production. Ideal for salad packs and fresh market.



## ROCKET (Wild)

### PRIMARIS

**Medium-cycle plant for year-round production.**  
Erect plant habit facilitates cutting as well as improving aeration and may limit foliar diseases. Strong re-growth and good resistance to flowering. Dark green, dense leaves with good shelf-life.



## PARSLEY

### ROBUST

**DARK GREEN CURLED RACE**  
**Vigorous with good cold tolerance.**  
Very dark green-leaved moss curled variety. Upright foliage with shorter leaf stems than Frison and excellent shelf life. Best used for autumn and winter production for fresh market and processing.



### FRISON

**DARK GREEN CURLED RACE**  
**Noted for quality and late autumn extra re-growth.**  
Vigorous with curled, dark green foliage that stands very well in adverse weather. Can be used for all year round plantings for fresh market and processing.



### NOVAS

**GIGANTE D'ITALIA RACE**  
**Selected Italian Plain Leaf type.**  
Dark green foliage with excellent re-growth after cutting and moderate cold tolerance for this type. Suitable for fresh market and drying.

# COURGETTES

## TOSCA F1

### Mid-green maincrop.

High quality, very straight, smooth skinned fruits. Open habit, low susceptibility to powdery mildew and good vigour make it well adapted to production in late July to September. IR:Px



## CORA F1

### Very prolific early maincrop variety.

Uniformly cylindrical, dark, shiny fruits with long shelf-life. Open plant habit with short internodes. For harvest from July to September.



## ALLEGRIA F1

### Early yielding and highly productive with glossy, dark green, cylindrical fruits.

Slightly more vigorous than Tosca F1 with open plant habit. IR: Px, ZYMV, WMV.



## OPTIMA F1

### Dark green late maincrop.

Medium vigour and excellent fruit quality. Comprehensive range of resistances makes it suitable for use particularly where CMV is a problem. IR: Px, ZYMV, WMV, CMV.



## SUNLIGHT F1

### Glossy, bright golden-yellow fruits, straight and slightly ribbed.

Productive with strong vigour. IR: PRSV, ZYMV, WMV.



## RESISTANCES

WMV : Virus IR Watermelon Mosaic Virus  
ZYMV : Virus IR Zucchini Yellow Mosaic Virus  
CMV : Virus IR Cucumber Mosaic Virus  
Px : Fungi IR Podosphaera xanthii (ex-Sphaerotheca fuliginea)  
PRSV : Papaya Ringspot Virus



# PUMPKINS

## SPITFIRE F1

**Smaller fruited Halloween type.**

Despite its vigorous growth the fruits colour early and evenly. Slightly flattened with a fruit weight around 2kg and 20-25cm in diameter. Intermediate resistance to Powdery Mildew (Px).



## GOMEZ F1

**Medium maturity Halloween type with strong attachment of the handle and intermediate resistance to Powdery Mildew (Px).**

Vigorous plant habit. Dark orange, round to high-round fruits of about 3kg-4kg, with uniform average diameter of 21cm. Good productivity with one to two fruits per plant.



## GLADIATOR F1

**Compact vine with rather upright foliage.**

Deep round 5kg-6kg fruits of 25-30cm with a strong attachment and intermediate resistance to Powdery Mildew (Px).



## MAGICIAN F1

**Medium sized, deep orange Halloween type with smooth skins.**

High yields, good round shape with 25-30cm diameter and 3kg-4kg weight. Intermediate resistance to Powdery Mildew (Px) as well as Zucchini Yellow Mosaic Virus.

## MAGIC LANTERN F1

**Large Halloween type with a weight around 7.5kg.** Vigorous plants each producing large round, and smooth uniform fruits that colour up well. Good level of foliage die-back and intermediate resistance to Powdery Mildew (Px).



**NEW**

## KRATOS F1

**Very large Halloween type fruits, weighing up to 10kg and 30-35cm diameter.**

Vigorous and healthy vines. Although fruits are fast to change colour, early planting may be required to achieve full maturity.



## CRUNCHKIN F1

**Decorative, mini-Halloween type.**

Bright orange, darkening as it ages. Flattened, scalloped, 500g fruits with hard shell. Very vigorous and healthy.



VARIETY	MATURITY AND COLOURING	SIZE OF VINE	DIAMETER (cm)	FRUIT SHAPE	RIBBING OF SKIN	Px	ZYMV <sup>2</sup>
<b>SMALL SIZE</b>							
CRUNCHKIN F1	Very early	***	9-12	Flattened	***		
<b>MEDIUM SIZE HALLOWEEN</b>							
GOMEZ F1	Maincrop	***	20-25	Round	**	IR	
SPITFIRE F1	Very early	***	20-25	Flat-round	*	IR	
<b>LARGE SIZE HALLOWEEN</b>							
GLADIATOR F1	Mid-early	**	20-30	Tall-round	**	IR	
MAGICIAN F1	Maincrop	**	25-30	Round	*	IR	IR
MAGIC LANTERN F1	Maincrop	**	25-30	Round	*	IR	
MAGIC WAND F1	Mid-early	**	25-30	Flattened round	*	IR	
KRATOS F1	Maincrop	**	30-35	Tall-round	**	IR	

ABBREVIATION  
Px  
ZYMV<sup>2</sup>  
IR

COMMON NAME  
Powdery mildew  
Zucchini Yellow Mosaic Virus  
Intermediate Resistance

CAUSAL AGENT  
*Podosphaera xanthii*

A higher number of \*\*\* means: larger vine, stronger ribbing, harder skin.

# TURNIP

## ARMAND

### WHITE GLOBE PURPLE TOP RACE

Excellent performance in cold conditions.  
Autumn to winter cropping. Very upright foliage. For harvest  
December to February.



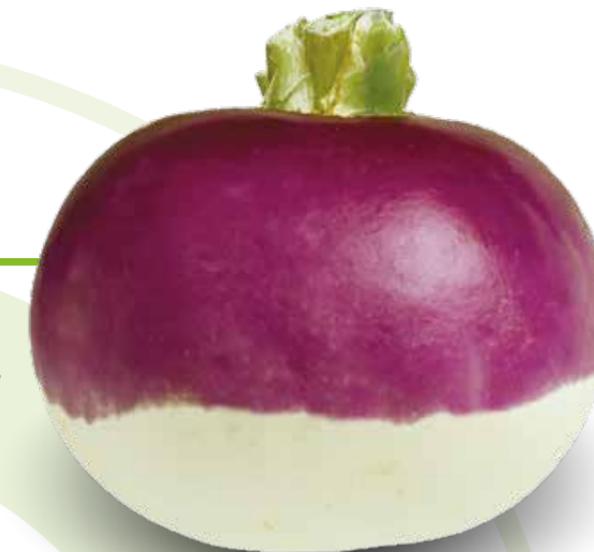
## ATLANTIC

### MILAN TYPE WHITE GLOBE PURPLE TOP RACE

Very early, flat, evenly coloured roots.  
Foliage is dark green and erect, making it very suitable  
for bunching. Excellent bolting tolerance and adapted to  
summer and autumn protected or open-field production.

## PLESSIS F1

Globe purple top hybrid adapted to late spring  
and summer sowing.  
Very uniform with good cold tolerance. Dark green,  
dense leaves with good shelf-life.



## DECLIC F1

Hybrid flat purple top with excellent uniformity  
for early production in bunches or bulk.  
Quick growing with good bolting tolerance.



## RICHELIEU F1

Good frost tolerance for  
winter harvest.  
Excellent uniformity and product  
quality. Well adapted for cultivation  
under nets.

NEW

## ARAMIS

### NANCY TYPE WHITE GLOBE PURPLE TOP RACE

Dense flesh and no hollow.  
Attractive colour and good yield. For summer  
and autumn harvest.



# ONIONS

## ELODY

**Late variety with frost resistance.**  
Pure white, round to very slightly elongated bulbs. Solidly attached dark green, erect foliage that survives the winter in excellent condition. For bunching and bulbs.



## ROUGE LONG DE FLORENCE

**Oval shaped pink-red onion for autumn or spring sowing.**  
Attractive 40-60mm bulbs with excellent flavour, often used in salads. Short to medium storage capacity.



# SWEETCORN Yellow supersweet SH2

## TURBINE F1

**NEW**

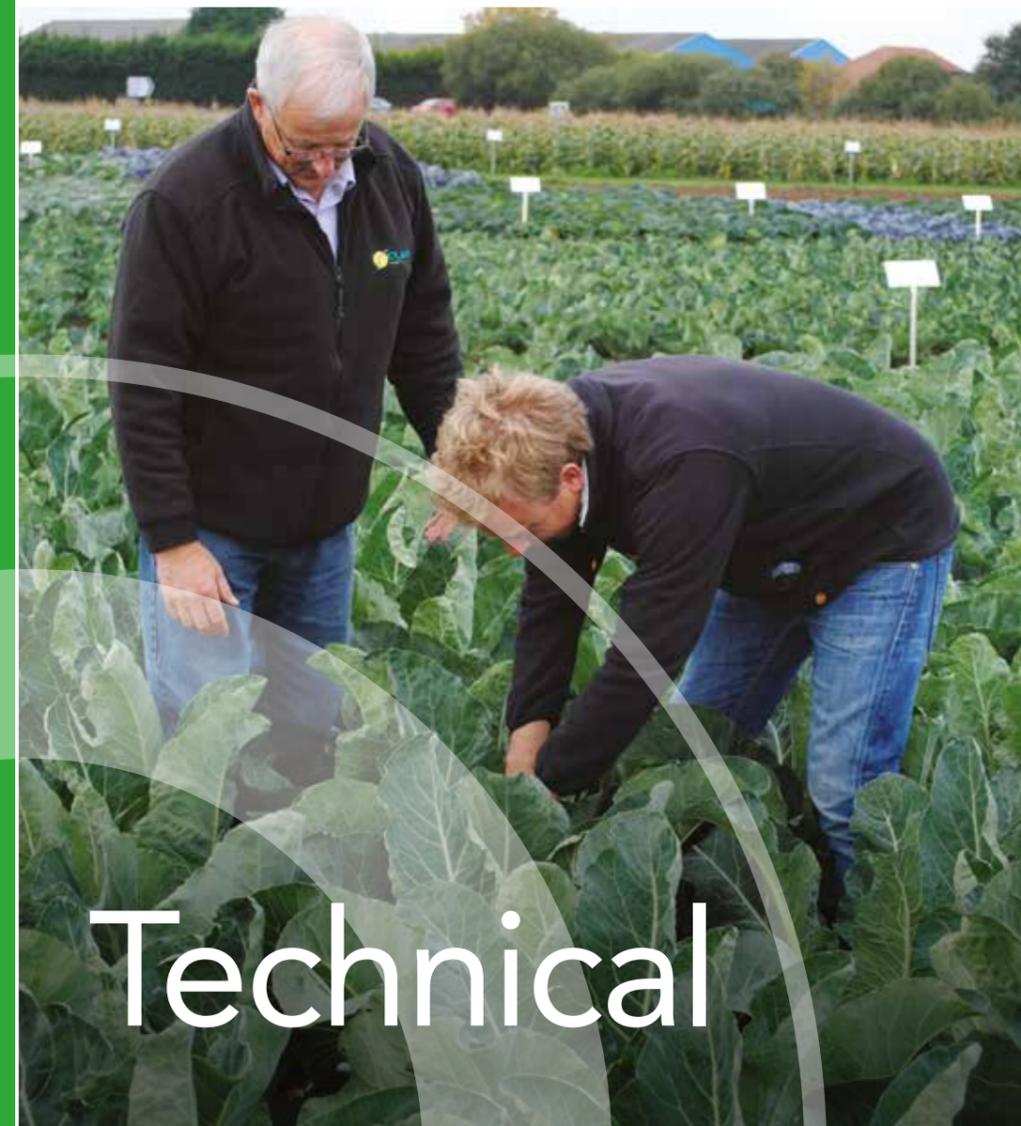
**Relative maturity 70 days.**  
Provides the earliness as required for first harvests in UK cropping programmes, offering improved eating quality. Well-filled cobs of the correct size with very good cover on the tips. Plants remain upright until the point of harvest.



## LISKAM F1

**NEW**

**Relative maturity 77 days.**  
Main season hybrid with very uniform development of the cobs, resulting in high quality, large pack-outs after harvest. Sturdy and upright plant habit.



# Technical

Definitions and Standards.....	40 - 41
Cropping Guides.....	42 - 43
Technical and Treatments .....	44
Terms and Conditions...	45 - 47

# DEFINITIONS AND STANDARDS

To meet your different needs, according to your requirements and farming techniques, CLAUSE offers seeds with appropriate quality levels:

- ELISEM®** - Professional quality seeds characterised by:
- good germinative quality (higher than European standards)
  - regularity in calibre
  - appropriate sanitary protection

- ELITOP®** - High-quality, precision seeds, characterised by:
- high germinative quality
  - regularity in calibre
  - uniform sprouting
  - appropriate sanitary protection

- PRECITOP®** - Very high-quality, precision seeds, characterised by:
- very high germinative quality
  - regularity in calibre
  - very good energy
  - appropriate sanitary protection
  - uniform sprouting

Depending on the species, these seeds are available in pregerminated form

	ELISEM®	ELITOP®	PRECITOP®
GERMINATIVE QUALITY	***	****	*****
ENERGY	***	****	*****
UNIFORMITY	***	****	*****
REGULARITY OF CALIBRE	Yes	Yes	Yes
APPROPRIATE SANITARY PROTECTION	Yes	Yes	Yes
PREGERMINATION	No	No	Depending on the species

## ESA Product Specifications for Precision and Pellets, Germination and Variety Purity

CROP	PURITY %	GRADUATION (mm)	GERMINATION %	
			PRECISION	PELLETS
ASPARAGUS	-	-	85	-
BRASSICA	93	0.2/0.25	90	-
CAULIFLOWER	90	0.2/0.25	90	-
DWARF BEAN	-	-	85	-
BROAD BEAN	-	-	85	-
CLIMBING BEAN	-	-	95	-
BEETROOT MONOGERM	-	0.5	80	-
BEETROOT MULTIGERM	-	0.5	90	-
CARROT	-	0.2/0.25	85	-
CELERY/ CELERIAC	-	-	90	90
CELERY WITLOOF	-	0.2/0.25	85	85
CORN SALAD	-	0.2/0.25	85	-
CUCUMBER INDOOR	99	-	92	-
CUCUMBER OUTDOOR	98	-	92	-
EGGPLANT	98	-	90	-

## ESA Product Specifications for Vegetable Precision Seeds

These product specifications for germination of precision seeds, varietal purity of precision seeds and seed health requirements are based upon ESA recommended standards.

These product specifications are not meant to be absolute minimum standards for delivery. If the quality tests of Clause indicate a lower quality-level than given in these specifications, Clause will inform prospective seed users. This communication is aimed at informing professional seed users about the quality they can expect, so they can make their own assessment and decide if these seeds meet their requirements.

## ESA Vegetable Seed Product Specifications

Vegetable growing has become a highly specialised and intensive activity. As a result of the ever-increasing demand for better quality, vegetable growers and plant raisers require an improved quality of the basic material.

The demand for specific seed forms and more information about seed quality has strongly increased to better influence emergence and required number of plants.

Seed is a natural product. The often-varying environmental conditions, thus, influence final results. It is, therefore, often not possible to give detailed information about emergence and other physical seed characteristics. To meet the wishes of clients as much as possible Clause has made up quality standards for the various seed categories.

The germination percentages mentioned are Clause minimum required figures and made up according to ISTA methods and tolerances.

CROP	PURITY %	GRADUATION (mm)	GERMINATION %	
			PRECISION	PELLETS
ENDIVE	-	-	90	92
FENNEL	-	0.2/0.25	90	90
LEEK OP	-	0.2/0.25	90	90
LEEK F1	-	0.2/0.25	85	85
LETTUCE	98	-	93	95
MELON CHARENTAIS	98	-	95	-
MELON OTHER	98	-	90	-
ONION	-	-	90	-
PARSLEY	-	0.2/0.25	87	-
PEA	-	-	85-88	-
RADICCHIO	-	-	88	88
RADISH	-	0.2/0.25	92	-
SPINACH	-	0.75	85	-
SWEETCORN	-	-	85	-
SWEET/ HOT PEPPER	97	-	90	-
SQUASH	97	-	92	-
TOMATO (FRESH)	98	-	92	-

## General Definitions

- Normal seed** In general, normal seed has not been subjected to special processes. It is sold by weight and/or by count, depending on the product. Normal seed complies with EC standards.
- Precision seed** Precision seed has been subjected to additional processes. It has a uniform size and high germination. Precision seed is sold by count.
- Priming** Priming is defined as an activation of the germination process with the purpose to obtain faster or more uniform emergence after sowing. Primed seed is sold by count.
- Pelleting** Pelleting is defined as the process of changing the seed form by covering it with a material, the main purpose being to improve uniformity of size and shape resulting in improved sowing ability. Also additional ingredients may be added. Pelleted seed is sold by count.
- Filmcoating** Film coating is a full covering, usually pigmented layer, around the seed. The original seed form remains intact. Additional ingredients may be added. Film coating treatments that contain insecticides are normally identifiable by colour coding. Film coated seed is sold by count.
- Gluecoating** Glue coating is a process which fixes the applied crop protection products in an almost dust free manner to the seed. A pigment may be added.
- Germination** Germination figures relate to ISTA procedures and are valid at the time of delivery.
- Varietal purity** Varietal purity rate is defined as: the percentage of plants from a seed lot that meets the variety description.

## Definitions

- Immunity** Not subject to attack or infection by a specified pest or pathogen.
- Resistance** is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure.
- Two levels of resistance are defined.**
- High/standard resistance (HR\*):** plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.
- Moderate/intermediate resistance (IR\*):** plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to resistant varieties.
- Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.
- Susceptibility** is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.
- Tolerance** is the ability of a plant variety to endure abiotic stress without serious consequences for growth, appearance and yield.

## ESA Recommendation on Seed Health Requirements

In order to supply sufficiently healthy vegetable seeds and in order to meet the requirements of EU Council Directive 2002/55/EC, Clause uses various disease risk management strategies to prevent and control seed transmitted diseases. These may include and are not limited to seed health testing programs, protected seed production, field inspections, seed treatments and other effective seed disinfection methods.

ISHI-VEG has developed the Manual of Seed Health Testing Methods, which includes state of the art seed health testing protocols. Clause follows the ISHI-VEG recommended minimum sizes of a representative sample for seed health testing.

Information regarding the ISHI-VEG seed health test protocols and recommended minimum sample sizes can be found at: [www.worldseed.org/isf/ishi\\_vegetable.html](http://www.worldseed.org/isf/ishi_vegetable.html)

## Seed Quality and Seed Health

Clause complies, at least, with all the statutory requirements arising from legislation regarding the marketing and sales of standard seed of vegetable crops.

To supply the highest possible level of seed quality and service, Clause works according to a number of quality systems designed to manage and inspect its activities. The execution of the Clause quality assurance systems is under the control of the official Dutch inspection service for horticulture, Naktuinbouw.

Clause's laboratories situated in Made (NL) have been accredited according to the NAL (Naktuinbouw Accredited Laboratory) standard, to conduct routine tests for germination, genetical and physical purity and specific (seed borne) diseases.

Furthermore, Clause is permitted by Skal, the inspection body for organic production in the Netherlands, to market organically produced seeds under the EKO quality label. The quality systems are audited on a regular basis both internally and externally.

Clause devotes the utmost care to the production of seeds. We can, however, not guarantee that these seeds will always match the set expectations and/or are wholly free of seed borne diseases. Any liability and namely liability relating to such diseases (but not limited to these) is therefore rejected. Moreover, any damage that arises from the use of these seeds is limited to the purchase price of these seeds and the user of the seeds cannot lodge any claim with Clause or its distributor(s) for any other (consequential) damage.

Much research at Clause is aimed at resistances against pests and diseases. The resistance coding applied by Clause is based on the guidelines for resistance coding established by the International Seed Federation. It is important, in general, to emphasise that the specificity of pests or pathogens may vary from time to time and from place to place, that it is dependent on environmental factors and that new biotypes of pests or new pathogenic races able to overcome resistance may emerge.

## The Reaction of Plants to Pests or Pathogens

Differing degrees of specificity exist in the relations between plants and pests or pathogens. Identification of such specificity generally requires the use of highly elaborate analytical methods. Recognizing whether a plant is subject to a pest or pathogen or not may depend on the analytical method employed.

It is important, in general, to stress that the specificity of pests or pathogens may vary over time and space, depends on environmental factors, and that new pest biotypes or new pathogen races capable of overcoming resistance may emerge.

## Genetically Modified Organisms

We are not offering for sale or trialling any genetically modified material. When in due course varieties are produced in this way they will be clearly labelled and identified in line with public requirements.

## Technical Disclaimer

This Clause catalogue has been constructed with the utmost care. Clause and/or its representatives give no guarantee that the information provided, including, but not limited to, variety descriptions and technical advice, is complete and accurate and suitable for all purposes the user may choose.

Technical data and recommendations are based on Clause trials and general experience. A considerable part of the information given is based on Northern hemisphere or Northwest-European circumstances.

All information is only supplied to assist professional growers and users who should always take account of their local conditions or specific situations which may be different.

Hence, these recommendations do not provide a guarantee of a successful crop. Clause, therefore, accepts no responsibility or liability whatsoever for any damage or loss of profits resulting from the information.

# CROPPING GUIDES

CROP	NATURAL SEED COUNT per g	SEED SIZE RANGE mm	REQUIRED NATURAL SEED				TARGET POPULATION		COMMENT	SOWING PERIOD	PLANTING PERIOD	HARVEST PERIOD
			DRILLED		PLANTED		PLANTS PER					
			a	ha	a	ha	a	ha				
Calabrese Broccoli	200-400	1.25-2.25			12-14,000	30-35,000	14,000	36,000	large heads small heads	Feb-Aug	Mar-July	May-Nov
Pointed Cabbage	200-350	1.25-2.25			35,000	87,500	35,000	87,500		Feb-Jun	Mar-Jun	Jun-Oct
Spring Cabbage (Greens)	170-400	1.25-2.75			28-35,000	70-85,000	50,000	110,000	non-hearted greens	end July-early Aug Mar-July	Aug-Sept Apr-July	Mar-May Jun-Nov
Summer Cabbage	200-350	1.25-2.75			25,000	60,000	25,000	60,000		Feb-Apr	Mar-May	Jul- Aug
Autumn Cabbage	200-350	1.25-2.75			25,000	60,000	25,000	60,000		Feb-May	Apr-Jun	Aug-Oct
Storage Cabbage	200-350	1.25-2.75			22-24,000 10-11,000	60,000 27,500	22-24,000 10-11,000	60,000 27,500	small heads large heads	Mar-Apr	Apr - Jun	Oct
Savoy Cabbage	200-350	1.25-2.75			18-20,000	45-50,000	18-20,000	45-50,000	early varieties main crop	Mar-Apr Apr-Jun	Apr-May May-Mid Jul	Jul-Sept Oct-Apr
Winter Cabbage	200-350	1.25-2.75			18-20,000	45-50,000	18-20,000	45-50,000		Apr-Jun	May-Mid Jul	Oct-Mar
Summer & Autumn Cauliflower	250-450	1.25-2.75			12-14,500	30-36,000	12-14,500	30-36,000		Oct Feb-May	May-Jun	Jun-Oct
Autumn & Winter Cauliflower	250-450	1.25-2.75			7.5-9,000	22-30,000	9-12,000	22-30,000		May-Jun	July	Nov-May
Beetroot	40-90	2.25-6.50	4kg 5kg	10kg 13kg			350,000 700,000	865,000 1,730,000	maincrop baby beet	Mar-Jun		Jul-Nov
Carrot	600-1200	1.00-2.50	600g	1.5kg			650-900,000	1.6-2.3 million		Jan -Jun		Jun-May
Leek	325-450	1.25-3.00	130-180,000	325-450,000			130,000	325,000		Mar-May		Sept-Apr
Onion	200-350	1.50-3.00	220,000 250,000	550,000 625,000			220,000 250,000	550,000 625,000	spring sown over-wintered	Feb -Apr Aug		Aug-Oct
Turnip	370 - 520	1.00-2.50	800g	2kg			140,000	350,000		Mar-Aug		Jun-Nov
Aubergine	150-250	2.25-3.25					14,000	35,000	glasshouse	January+	April+	July+
Capsicum	110-190	2.50-4.00					14,000	35,000	glasshouse	January+	April+	July+
Chinese Cabbage	300 - 400	1.25-2.75					44,000	110,000		Jan-Jun	Mar-Aug	Jun-Nov

CROP	NATURAL SEED COUNT per g	SEED SIZE RANGE mm	REQUIRED NATURAL SEED				TARGET POPULATION		COMMENT	SOWING PERIOD	PLANTING PERIOD	HARVEST PERIOD
			DRILLED		PLANTED		PLANTS PER					
			a	ha	a	ha	a	ha				
Corn Salad	600 - 900	1.50-3.50	2.3 million	6 million			1,750,000	4,500,000	under covers	Mar-Oct		Apr-Jan
Endive	700 - 800	1.00-2.00					42,000	100,000	outdoor	Apr-Jul	May-Aug	Jul-Oct
Fennel	200 - 300		500g	1200g	200g	490g	42,000	100,000	glasshouse outdoor	Feb-Mar Apr+	Mar-Apr May+	May-Jun Jul+
Lettuce, Indoor Butterhead	650 - 1100	0.75-2.00					45-60,000	120-160,000	winter varieties summer varieties	Aug- Mar Feb-Jul	Sept-Apr Apr-Aug	Oct-May May-Oct
Lettuce, Outdoor	650 - 1100	0.75-2.00			40,000 30,000	100,000 75,000	40,000 30,000	100,000 75,000	butterhead/ cos iceberg crisp	Jan-Jul	Mar-Aug	May-Oct
Marrow	4-8				1kg	2.5kg	6,000	15,000		Mar+	May+	Jul+
Parsley	400-700	1.00-2.50	2kg	5kg			78,000	193,000		Feb-Jul Sept		Jun-Nov Apr-Jun
Pumpkin	4-6				1kg	2.4kg	5,000	12,400		Mar+	May+	Jul+
Radish, Indoor	80-180	1.50-3.50	6kg	16kg			1 million	2.5 million		Sept-Apr		Nov-May
Radish, Outdoor	80-180	1.50-3.50	80,000	2 million			80,000	2 million	beds	Mar-Aug		Apr-Nov
Salad Onion - Allium cepa	250-350	1.50-3.00	5 - 7kg 8 - 9kg	15kg 20kg			1.5 million 2.5 million	3.5 million 6.2 million	summer over winter	Feb-May Jul-Aug		Jul-Aug Mar-May
Salad Onion - A.fistulosum	400-500	1.50-3.00	3 - 4kg	8kg			1.5 million	3.5 million		Feb-Aug		Jul-Nov
Sweetcorn	4-7	7-12.5	4kg	10kg			17 - 20,000	42-50,000		Apr-Jun		Jul-Oct
Tomato	250-350	1.50-4.00					8 - 12,000	22-30,000		Oct -Feb	Jan-May	May-Oct
	per kg											
Broad Bean	1,000-2,000	15-25	60kg	150kg			48,000	120,000		Nov Feb -May		Jun Jun-Sept
Climbing Fr. Bean	2,000-4,000	5-10			12kg	30kg	33,000	80,000		Feb -May	Feb-Jun	May-Oct
Dwarf Fr. Bean	4,000-6,500	5-20	20kg	50kg			100,000	247,000	row system	May-Jun		Aug-Oct
Runner Bean - stick - ground	800-1,200	10-25	16kg 40kg	40kg 100kg			16,000 45,000	40,000 110,000	2 plants per station	May-Jun Apr		Aug- Oct Jul-Aug

# TECHNICAL & TREATMENTS

## NUMBER OF SEED/PLANT STATIONS PER ACRE AT VARYING ROW SPACING

DISTANCE BETWEEN STATIONS

ROW SPACING	1" (2.5)	2" (5.0)	3" (8.0)	4" (10.0)	5" (13.0)	6" (15.0)	7" (18.0)	8" (20.0)	10" (25.0)
12" (30.0)	522720	261360	174240	130680	104544	87120	74487	65340	52272
14" (35.0)	450360	225180	150120	112590	90072	75060	64176	56295	45036
16" (40.0)	392040	196020	130680	98010	78408	65340	55865	49005	39204
18" (46.0)	348480	174240	116160	87120	69696	58080	49658	43560	34848
20" (51.0)	313632	156816	104544	78408	62726	52272	46692	39204	31363
22" (56.0)	285120	142560	95040	71280	57024	47520	40629	35640	28512
24" (61.0)	261360	130680	87120	65340	52272	43560	37243	32670	26136
26" (66.0)	241272	120636	80424	60318	48254	40212	34381	30159	24127
28" (71.0)	225180	112590	75060	56295	45036	37530	32088	28147	22518
30" (76.0)	209088	104544	69696	52272	41817	34848	29796	26136	20908
36" (91.0)	174240	87120	58080	43560	34848	29040	24829	21780	17424

ROW SPACING	12" (30.0)	14" (35.0)	16" (40.0)	18" (46.0)	20" (51.0)	22" (56.0)	24" (61.0)	26" (66.0)	28" (71.0)	30" (76.0)
12" (30.0)	43560	37461	32670	29185	26136	23958	21780	20037	18730	17424
14" (35.0)	37530	32275	28147	25145	22518	20641	18765	17263	16137	15012
16" (40.0)	32670	28096	24502	21889	19602	17968	16335	15028	14048	13068
18" (46.0)	29040	24974	21780	19456	17424	15972	14520	13358	12487	11616
20" (51.0)	26136	22476	19602	17511	15681	14374	13068	12022	11238	10454
22" (56.0)	23760	20433	17820	15919	14256	13068	11880	10929	10216	9504
24" (61.0)	21780	18730	16335	14592	13068	11979	10890	10018	9365	8712
26" (66.0)	20106	17291	15079	13471	12063	11058	10053	9248	8645	8042
28" (71.0)	18765	16137	14073	12572	11259	10320	9382	8634	8068	7506
30" (76.0)	17424	14984	13068	11674	10454	9583	8712	8015	7492	6969
36" (91.0)	14520	12487	10890	9728	8712	7986	7260	6678	6243	5808

## SEED GRADES

SEED GRADE	SIZE IN MM
F	1.25 to 1.50
G	1.50 to 1.75
H	1.75 to 2.00
J	2.00 to 2.25
K	2.25 to 2.50
L	2.50 to 2.75
M	2.75 to 3.00
N	3.00 to 3.25
P	3.25 to 3.50

Figures in brackets show centimetre (approximate) equivalents

SPECIES	ACTIVE INGREDIENT				
	TARGET PESTS AND DISEASES	GENERAL WIDE SPECTRUM (DAMPING OFF)	MILDEW	OTHERS	INSECTICIDES
BRASSICA		Thiram	Metalaxyl M		
CARROT		Fludioxonil	Metalaxyl M		Tefluthrin* (carrot fly)
CELERY		Thiram			
CHICORY (ENDIVE)		Thiram			
COURGETTE		Thiram			
CORN SALAD		Thiram	Metalaxyl M	Thiophanate methyl	
ONION		Thiram			Tefluthrin* (bean seed fly)
PARSLEY		Thiram			
RADISH		Thiram			
SWEET CORN		Fludioxonil (+ Thiram)	Metalaxyl M	Carboxine (if smut)	

\* EAMU - Extension of Authorisation for Minor Use in the UK.

# TERMS AND CONDITIONS

Clause UK is a trading division of Hazera Seeds UK Ltd, a company registered in England with Company Number 3189023.

General Terms and Conditions of Sale and Delivery of Hazera Seeds UK Ltd., of the United Kingdom. Drawn up by Hazera Seeds UK Ltd., J.N.R.C. Rothwell, Market Rasen, Lincs, LN7 6DT, UK

## ARTICLE 1. APPLICATION OF THESE GENERAL TERMS AND CONDITIONS

- These general terms and conditions shall apply to and are hereby incorporated into Order Confirmations, Agreements and Offers from Hazera Seeds UK Ltd., hereinafter to be called "Hazera", to the Buyer, relating to Products unless expressly provided otherwise in writing.
- The application of any terms and conditions of the Buyer is expressly rejected and explicitly excluded from these general terms and conditions, as well as any terms which are implied by trade, custom, practice or course of dealing.

## ARTICLE 2. DEFINITIONS

- "Buyer" shall mean the natural person or legal entity entering into a contract of sale with Hazera for the purchase of Products.
- "Hazera" shall mean Hazera Seeds UK Ltd., a private company limited by shares incorporated and registered in England and Wales with company number 3189023, whose registered office is at Joseph Nickerson Research Centre, Rothwell, Market Rasen, Lincolnshire, LN7 6DT.
- "Hazera" and "Buyer" are hereinafter together referred to as the "Parties" and individually as a "Party".
- "Incoterms" shall mean the Incoterms published by the International Chamber of Commerce in Paris (ICC) and most recently published in use.
- "Intellectual Property Rights" shall mean all current and future registered and unregistered intellectual property rights, including but not limited to plant breeder's rights, utility patent rights, patent rights, design rights, copyrights, trade secrets, trademarks and service marks and/or any other rights, throughout the world.
- "Naktuinbouw" shall mean the Netherlands Inspection Service for Horticulture having its registered office at Sotaweg 22, Postbus 40, 2370 AA Roelofarendsveen, The Netherlands.
- "Order Confirmation" shall mean the written confirmation of acceptance by Hazera of the Purchase Order, by means of letter, fax, email or packing note.
- "Offer" shall mean particular terms applicable to a specific sale proposed by Hazera to the Buyer.
- "Plant Material" shall mean all plants, parts of plants and crops, produced or cultivated out of the Products, and destined for human (and animal) consumption.
- "Products" shall mean seeds and/or planting material and/ or services delivered by Hazera to the Buyer.
- "Processing" shall mean the treatment of the Product including but not limited to the treatment for the improvement of the sowability, germination, plant quality and the prevention of pest and or diseases and/or diseases.
- "Price List" shall mean an overview of the selling prices of Products that Hazera publishes and/or distributes from time to time.
- "Purchase Order" shall mean an instruction for the purchase of Products placed by Buyer.
- "Resistance Terminology" shall mean the information and terminology provided in Article 12.
- "Product Specifications" shall mean the so called information published on the Hazera websites, pages and pricelists.

## ARTICLE 3. OFFERS AND ACCEPTANCE

- All Offers made by Hazera are without engagement and can be withdrawn at any time. The prices specified in an offer are exclusive of VAT.
- Offers can only be accepted by the Buyer in writing; Hazera nevertheless reserves the right to treat a verbal acceptance as if it were given in writing.
- If the Buyer accepts an Offer, Hazera nevertheless reserves the right to withdraw the offer within 3 working days after receipt of acceptance (either verbally or in writing), in which case no agreement is concluded between the parties.
- Verbal Offers automatically expire if the Buyer does not accept them in writing within 3 days, if not specifically indicated differently.
- Written Offers automatically expire if not accepted by the Buyer in writing within 30 days, if not specifically indicated differently.
- An Offer to the Buyer or a purchase agreement between Hazera and the Buyer does not imply, and may not in any way be interpreted as a silent licence (agreement) to the Buyer with regard to any Intellectual Property Rights attaching to the offered or sold Products.
- Hazera shall use its reasonable endeavours to perform according to the Purchase Order. Nevertheless, Hazera shall be entitled to deviate from the Purchase Order placed by the Buyer with respect to size, packaging, quantity or weight without breaching such reasonable endeavours obligations.
- When placing a Purchase Order, the Buyer shall report which information, specifications and documents are required under the rules and regulations of the country of delivery. The Buyer shall be responsible for informing Hazera of any formalities that must be complied with to enable import. The Buyer shall also provide Hazera with information on any required certificates, phytosanitary matters, import documents or invoices.
- Hazera is not liable for delays or non-handling of a Purchase Order resulting from or in connection with the Buyer's failure to comply with any of its obligations under Article 3. The Buyer shall be liable for any loss or damage directly or indirectly incurred by Hazera resulting from or in connection with such failure.

## ARTICLE 4. CROP AND PROCESSING RESERVATION

- All deliveries are subject to the customary crop and processing reservation. If Hazera invokes the crop and processing reservation, Hazera is not obliged to supply. Hazera will, if possible, attempt to deliver part of the quantity ordered and/or the nearest alternative.
- The Buyer is not entitled to compensation if Hazera invokes this reservation.

## ARTICLE 5. ORDERING AND DELIVERY

- If the quantity ordered in any order differs from the standard quantity applied by Hazera or a multiple thereof, Hazera will deliver the next highest quantity.
- Hazera reserves the right to charge an additional fee on orders with a value of less than £200.
- Hazera will use its reasonable endeavours to fulfill its delivery obligations.
- Hazera's delivery obligations are fulfilled if the delivery is made with a minor difference in size, packaging, number or weight from the Products ordered.
- Hazera is permitted to make part shipments of the Products sold. If the Products are delivered in part shipments, Hazera has the right to invoice each shipment separately.
- Carriage takes place ex works (EXW) of Hazera in accordance with the Incoterms. Hazera undertakes to deliver within a reasonable period, in accordance with the sowing season or planting season, following the conclusion of the purchase agreement.
- An agreed delivery period will not be binding. In the event of late delivery, the Buyer must give Hazera notice of default in writing and grant a reasonable period in which Hazera may fulfil the agreement.

## ARTICLE 6. RETENTION OF TITLE

- The Products delivered by Hazera and/or the Products derived from the Products delivered will remain the property of Hazera until the Buyer has paid the full purchase price. This retention of title also applies to any claims that Hazera may acquire against the Buyer due to the Buyer's failure to fulfil one of its obligations towards Hazera.
- Products delivered by Hazera to which the retention of title pursuant to Paragraph 1 applies, may be resold or used only in the normal course of business. If they are resold, the Buyer is obliged to demand retention of title from its own buyers, and Article 16 of these general terms and conditions will continue to apply.
- The Products delivered by Hazera, which are subject to retention of title pursuant to Paragraph 1, will at all times be stored and/or used in such a way that the quality will remain guaranteed and that the Products can easily be identified.
- The Buyer is not permitted to pledge or otherwise encumber the Products. In the event that the laws of the country where the Products are delivered provide for further-reaching possibilities to reserve title other than those contained in this Article, such possibilities shall be deemed to have been agreed by the Parties because the Buyer will be aware from these General Terms and Conditions of Sale that Hazera reservation of title in the Products and/or Plant Material is a condition precedent to entering into an agreement with the Buyer.

## ARTICLE 7. PRICES AND PAYMENT

- All prices stated by Hazera in its pricelist and/or in an Offer are in Pounds Sterling, exclusive of additional charge and costs, including but not limited to handling fees, transport and insurance costs, (quality) certificate costs, value added tax and charges for which Hazera reserves its rights to invoice Buyer when applicable).
- All stated prices in the Price List are subject to adjustment by Hazera. Hazera reserves the right to unilaterally change the prices. Any new prices will take effect upon communication to the Buyer by Hazera and will substitute earlier listed and/or offered pricing.
- For distinctive vegetable seed varieties, sold and purchased under specific conditions, an additional price - per square meter or any other quantitative unit - can be charged and included in the agreement. This additional price will be valid for one single commercial production or cultivation of Plant Material, unless otherwise agreed upon between the Parties.
- Hazera must receive payment within 30 days of the invoice date, unless stated and agreed differently. At the end of that period, the Buyer will be in default, in which case the Buyer will owe interest at a rate of 4 (four) % per annum above the base rate of the Bank of England for the time being on the outstanding amount as from the date of default. Such interest shall accrue on a daily basis from the due date until actual payment of the overdue amount, whether before or after judgment. The Buyer shall pay the interest together with the overdue amount.
- If the Buyer is liquidated, declared bankrupt or granted a suspension of payment, the Buyer's payment obligations will fall due immediately and Hazera will be entitled to suspend the further performance of the agreement or to terminate the agreement, all of this without prejudice to Hazera's right to claim compensation.
- If payment in instalments has been agreed, the entire remaining amount will fall due immediately without notice of default being required in the event of late payment of an instalment. The provisions of the last sentence of Paragraph 4 of this Article 7 apply accordingly.
- Without the prior written permission of Hazera, the Buyer has under no circumstances the right to postpone payments or to set these off against invoice amounts to be paid by Hazera, irrespective of whether the Buyer sets off its claims due to assumed defects in the shipment or for any other reason.
- The Buyer shall be automatically in default without any notice being required in the event of any overdue instalment and the remaining instalments shall become immediately due.
- Hazera reserves the right to suspend performance under any agreement with the Buyer, including but not limited to withholding all deliveries, until such time as all and any outstanding payments owed by the Buyer to Hazera under any agreement have been made.

## ARTICLE 8. SUSPENSION AND SECURITY

- If the Buyer fails to fulfil one or more of its obligations or to do so correctly and/or in time:
  - Hazera's obligations will automatically and immediately be suspended until the Buyer has fulfilled all its obligations (in case of a payment obligation, including payment of any extrajudicial costs);
  - Hazera may demand full payment and/or sufficient security from the Buyer, for instance in the form of a bank guarantee to be issued by a reputable banking institution, with regard to the performance by the Buyer.
- Hazera is entitled to demand full payment and/or sufficient security for payment by the Buyer before performing, if Hazera reasonably considers that the Buyer will not (or cannot) fulfil its obligations correctly and/or in time.

#### ARTICLE 9. COLLECTION COSTS

If the Buyer is in default or fails to perform one or more of its payment obligations, all the collection costs both in and out of court will be for the Buyer's account.

#### ARTICLE 10. USE AND GUARANTEE

1. Hazera will use its reasonable endeavours to ensure the product delivered will comply with the relevant product specifications. However, the product specifications will not apply as a guarantee. Hazera furthermore does not guarantee that the product will comply with any purposes notified to them by the Buyer.
2. All information on quality provided by Hazera will be based exclusively on reproducible tests. The supplied quality information merely indicates the result as achieved by Hazera at the time when the test was performed, subject to the conditions under which such test was performed. No direct relationship may be assumed between the information provided and the results achieved by the Buyer. The results achieved by the Buyer depend, among other factors, on the location, climatic conditions and cultural practices.
3. Any and all of Hazera's reasonable endeavours obligations will lapse if the Buyer processes the Products or has them processed, repackages the Products or has them repackaged, or uses the Products incorrectly.

#### ARTICLE 11. DEFECTS AND COMPLAINT TERMS

1. The Buyer must inspect the Products purchased upon delivery, or as soon as possible after delivery. In doing so the Buyer must check whether the Products delivered comply with the agreement, i.e.:
  - whether the correct Products have been delivered;
  - whether the quantity of the delivered Products corresponds with the agreement;
  - whether the delivered Products meet the agreed quality requirements or - if none were agreed - the requirements that may be stipulated for normal use and/or trading purposes.
2. If visible defects or deficiencies are established, the Buyer must inform Hazera accordingly in writing within 3 working days after delivery, specifying the lot number, packing list and/or invoice details as well as any supporting evidence (photos, expert statements etc.).
3. The Buyer must report any non-visible defects to Hazera in writing within 3 working days after delivery, specifying the lot number, packing list and/or invoice details.
4. Complaints must be described in such a manner that Hazera or a third Party can verify them. For that purpose the Buyer must also keep records with regard to the use of the Products and, in the event of resale of the Products, with regard to its buyers. If the Buyer does not file a complaint within the aforesaid period, the complaint will not be dealt with and its rights will expire.
5. In the event of a continuing dispute between the parties regarding the germination, trueness to type, varietal purity, technical purity and health, an inspection will be performed, at the request of either Party, by Naktuinbouw (Netherlands Inspection Service for Horticulture), whose registered office is in Roelofarendsveen, the Netherlands. The costs of such inspection shall be borne by the Party to be found most at fault. This request must be submitted within 6 months after the first written report of the problem to the other Party. The inspection will be carried out on the basis of a sample taken and retained by Hazera prior to sale. The result of this inspection will be binding for both parties, without prejudice to the parties' right to submit disputes on the consequences of this result to the institutes referred to in Article 21.

#### ARTICLE 12. PROVISION OF INFORMATION

1. Information provided by Hazera in any form whatsoever is provided without any warranties as to its accuracy. Descriptions, recommendations and illustrations in promotional publications such as websites, catalogues and brochures are based as closely as possible on experiences in tests and in practice and are intended for general information purposes only and not as an indication and/or guarantee of quality or fitness for purpose. Hazera in no event accepts any liability, on the basis of, the Buyer's use of such information if different results are obtained in the cultivated product. The Buyer must determine whether the Products are suitable for the intended horticultural crop and/or can be used under local conditions.
2. In the information provided by Hazera, the following meaning is given to the terms below:
  - 'Susceptibility': the inability of a plant variety to restrict the growth and development of a specified pest and/or disease.
  - 'Resistance': the ability of a plant variety to restrict the growth and development of a specified pest and/or disease the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest and/or disease and/or disease pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest and/or disease and/or disease pressure.

#### Two levels of resistance are defined:

- i. **high resistance (HR):** plant varieties that highly restrict the growth and development of the specified pest and/or disease under normal pest and/or disease and/or disease pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest and/or disease and/or disease pressure.
- ii. **intermediate resistance (IR):** plant varieties that restrict the growth and development of the specified pest and/or disease, but may exhibit a greater range of symptoms or damage compared to high resistant varieties. Intermediate resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest and/or disease pressure. It is to be noted that if a resistance is claimed in a plant variety it is limited to the specified biotypes, pathotypes, races or strains of the pest and/or disease. If no biotypes, pathotypes, races or strains are specified in the resistance claim for the variety, it is because no generally accepted classification of the cited pest and/or disease by biotype, pathotypes, race or strain exists. New biotypes, pathotypes, races or strains that may emerge are not covered by the original resistance claim.
  - 'Immunity': a plant variety is not subject to attack or infection by a specified pest and/or disease.

3. Hazera may at all times assume that the information and details provided by the Buyer to Hazera in the framework of the conclusion and performance of the agreement are correct and complete.
4. Resistances in varieties of our crops will be coded (see coding list at [www.hazera.nl](http://www.hazera.nl)), unless indicated otherwise. In case a variety is resistant to more than one pathogen, the individual resistance codes will be separated by the symbol '/'. If in a resistance code of a certain variety reference is made to certain strains for which the resistance is claimed this means that no resistance is claimed to other strains of the same pathogen. If, in a resistance code, no reference is made to strains of the pathogen for which the resistance is claimed, resistance is claimed only to certain not further specified isolates and we hereby disclaim any (implied) warranty that the variety will not be infected by the said pathogen.

#### ARTICLE 13. FORCE MAJEURE

1. In the event of force majeure and without judicial intervention being required, Hazera shall be able to wholly or partially suspend execution of the agreement or, if the event of force majeure persists, to wholly or partially terminate it. In no event shall Hazera be liable or required to pay any compensation to the Buyer in relation to such suspension or termination.
2. Force majeure means any circumstances that could not be reasonably foreseen and/or influenced by Hazera and as a result of which delivery of all or any of these Products is not reasonably possible or cannot reasonably be required. Force majeure includes but is not limited to: extreme weather conditions, natural disasters, measures by or regulations of any government, war or civil riot, destruction of the production facilities or materials due to fire, epidemic, failure of public facilities or transport, strikes in companies other than Hazera's, unofficial or political strikes in Hazera's group of companies, complete or partial lack of raw materials and other goods and services required to deliver the agreed Products, unforeseen delays at suppliers or other third parties that Hazera depends on, and transport difficulties.
3. Force majeure also means any circumstance that gives reason to rely on the harvesting and processing reservations usual in the seed industry. Such circumstances entitle Hazera to deliver to the Buyer a pro rata volume of the order, without prejudice to any other rights of Hazera under this Article.
4. Hazera will inform the Buyer as soon as possible if it is unable to deliver or to deliver in time due to force majeure.
5. If the force majeure lasts longer than 2 months, both parties will be entitled to dissolve the agreement in writing.

#### ARTICLE 14.

Use (Licence) of the Products and Product Information

1. Hazera grants the Buyer a non-exclusive, non-transferable and limited licence for the duration of the agreement to use the Products for the sole purpose of a single commercial production or cultivation and sale of Plant Material.
2. The Buyer must not use or cause or permit the use of the Products or Plant Material for any research, breeding, molecular or genetic analysis, crop, seed (re)production, propagation and/or multiplication or for any other purpose other than commercial production or cultivation of Plant Material in accordance with this Article.
3. The Buyer is -except with prior written consent and subject to any conditions imposed by Hazera- not permitted to supply any Product to any other person or entity for production or cultivation nor distribute, sell, transfer, sublicense, encumber, mortgage, pledge, offer as security any Product to and/or on behalf of any (legal) person or entity.
4. In the event that the Buyer who after receiving written consent from Hazera, sells and transfers Products to a third Party, the Buyer shall expressly impose the obligations of Article 11, paragraph 1, 2 and 3 on that third Party and provide in its agreement with such third Party that these clauses are also included for the benefit of Hazera, which may rely on them in legal proceedings under the Contracts (Rights of Third Parties) Act 1999 in case of violation thereof by the third Party.
5. The Buyer shall not employ subcontractors for the execution of any of its rights and obligations under these General Terms and Conditions of Sale without the prior written consent of Hazera. Such consent will normally be given by Hazera upon prior written request from Buyer for the cultivation of Plant Material by a third Party for the sole benefit of the Buyer, subject to any conditions that Hazera may require the Buyer to include in its agreement with such third Party.
6. All illustrations, catalogues, documents and statements provided by or on behalf of Hazera about quality, composition, weight, measurement, treatment in the broadest sense, applications and properties of the Products are based as closely as possible on Hazera's results and practical experience, however without giving any guarantee, representation or warranty regarding the Products' purpose or performance.
7. The Buyer acknowledges that any information provided by Hazera in relation to the quality (such as germination, mechanical or genetic purity, seed health) and performance of the Products applies only to the tests done by Hazera, to the specific seed sample used and to the specific conditions under which the tests were done. The Buyer agrees that the above mentioned information does not constitute an express or implied warranty about the quality and performance of the Products, or otherwise.
8. The Buyer acknowledges that the results obtained by the Buyer with the Products depend on such factors as the place of cultivation, the conditions prior to and during cultivation, including but not limited to storage of Products, the climate, the soil and crop protection methods used by the Buyer. The Buyer shall be solely responsible for determining the suitability and appropriateness of the use of the Products in the different conditions and/or for the different purposes.
9. Hazera provides product information to assist the Buyer and under no circumstances shall Hazera be liable to the Buyer for results deviating from that information. Hazera shall not be held liable for the accuracies of any information provided in relation to Resistances as defined in Schedule 1, Resistances to diseases indicated per Product, nor the Product Specifications as published on the Hazera websites and pages.
10. Any and all warranties shall lapse and Hazera shall not be liable for any Product that has been repacked, treated, conditioned and/or manipulated in any way by the Buyer or by Hazera or by a third Party on the Buyer's request.
11. The Buyer acknowledges that Products delivered by Hazera are not fit for human or animal consumption.

#### ARTICLE 15. LIABILITY

1. Hazera shall in no event be liable to the Buyer (or any third Party affected under the agreement) for any special, punitive, incidental or consequential damage, including but not limited to loss of profits, yield, goodwill, revenue, production, contracts or opportunity.
2. In any event and to the greatest extent permitted by law, Hazera liability shall be limited to the amount (excluding VAT) invoiced in respect of the subject Products, and shall, at Hazera's election, be limited to either replacement of the Products for no further fee or an amount equal to the price of the Products.
3. Any potential claim for liability or compensation shall expire in the event that no such claim has been brought forth within 12 months of the delivery of the Products.
4. The Buyer is required to limit as much as possible the damage with regard to the Products delivered about which a complaint is filed against Hazera.
5. Hazera does not accept any liability for damage caused by seed and/or planting material that has not been multiplied and/or reproduced by or on behalf of Hazera.
6. Hazera does not accept any liability for damages caused by incorrect use or ignorance of the safe use instructions.
7. The Buyer hereby explicitly understands and agrees to these limitations upon Hazera's liability.

#### ARTICLE 16. INDEMNIFICATION

The Buyer shall indemnify, hold harmless and defend Hazera and its affiliates (current and former), directors and employees against any and all third Party claims, actions, proceedings, and suits and related liabilities, damages, settlements, penalties, fines, costs and expenses (including, without limitation reasonable legal and professional fees) incurred by Hazera arising out of or relating to the Buyer's violation or breach of any term of the agreement, use or misuse of the Products, and/or the fault, negligence or willful intent of the Buyer.

#### ARTICLE 17. REPRODUCTION AND/OR MULTIPLICATION RESERVATION

1. The Buyer is not entitled to use the supplied Products and/or derived components and/or derived plant material for further multiplication and/or reproduction of parent material. Nor is the Buyer permitted, without the explicit permission of Hazera, with respect to the (multiplied) Products and/or components and/or derived plant material:
  - I) to treat and/or use these for multiplication,
  - II) to offer them for sale,
  - III) to sell them,
  - IV) to import or export them and/or
  - V) to keep them in stock for any of these or similar purposes.This includes all varieties essentially derived from a variety supplied by Hazera.
2. In the case of the resale of the supplied Products, the Buyer shall impose the above clause on its own buyers, under penalty of a fine for each infringement. The amount of the fine will not be less than the quantifiable benefit obtained by the Buyer and the costs of legal action to enforce these provisions.
3. The Buyer shall grant the holder of plant breeders' rights, or a Party acting on its behalf, direct access to its business, including in particular the greenhouses, to enable Hazera to carry out (or have carried out) an inspection. Business in this sense also includes all activities performed by third parties on behalf of the growers. The Buyer shall at Hazera's request grant immediate access to all administrative records with regard to the relevant parent material. The Buyer shall also impose the aforesaid obligations on its own buyers.

#### ARTICLE 18. INTELLECTUAL PROPERTY RIGHTS

1. The Buyer agrees and acknowledges that, subject to the licence provided under Article 14, paragraph 1, the exclusive right, title to and interest in all Intellectual Property Rights relating to the Products, Plant Material or any mutations, varieties or (biological) material obtained therefrom or included therein, including but not limited to genetics, traits, technology and/or all its (phenotypical) characteristics, as well as in Hazera trademarks shall at all times be and remain absolutely vested in Hazera or in any of its affiliates.
2. If and to the extent that the Buyer under the applicable law could establish any Intellectual Property Right in the Products, Plant Material or any mutations, varieties or (biological) material obtained therefrom or included therein, including but not limited to genetics, traits, technology and/or all its (phenotypical) characteristics, the Buyer agrees that the Buyer will not do so but rather transfer without undue delay such Intellectual Property Rights to Hazera, which accepts such transfer. The Buyer hereby authorizes Hazera to register and otherwise effect or complete such transfer under the applicable law and shall at Hazera's request assist in and carry out all actions deemed necessary by Hazera to register, effect and complete such transfer.
3. The Buyer agrees neither to use nor register any trademark, trade name, company name, domain name, symbols or variety designation which is identical or confusingly similar to the trademarks, trade name, company name, domain name, or symbols or variety designation owned by Hazera or any of its affiliate.
4. The Buyer may not use Hazera's trademarks, trade name and/or trade dress for any purpose unless otherwise approved in writing by Hazera.
5. In the event that the Buyer finds, observes or discovers a derived variety, including but not limited to any mutation in the production and cultivation of the Plant Material, the Buyer shall immediately notify Hazera thereof by registered letter.
6. At the written request of Hazera, the Buyer shall immediately provide Hazera with sufficient material from the derived variety (e.g. mutant), for testing purposes.
7. In the case of a derived variety (e.g. mutant) Buyer shall require the prior authorization of Hazera for the following acts in respect of constituents of the mutation or harvested material of the mutation: (a) production or reproduction, (b) conditioning for the purpose of propagation, (c) offering for sale, (d) selling or other marketing, (e) importing to and/or exporting; (f) stocking for any of the purposes mentioned above.

8. New mutations derived from the mutations shall also be regarded as a derived variety of the (protected) varieties of Hazera and paragraphs 5 to 7 of this Article 13 shall apply accordingly.
9. The Buyer agrees to allow and fully cooperate with any inspection by Hazera for the purpose to verify any possible infringement of Hazera's rights or violation of the agreement. The Buyer shall allow Hazera or a person or company appointed by Hazera to have direct access to the Buyer's premises including, but not limited to, its greenhouses, administrative and farming activities. The term 'activities' shall be understood to include activities carried out by third parties on behalf of the Buyer.
10. Important Notice: all Intellectual Property Rights reserved. Illegal reproduction and or exploitation is forbidden. Violation of these rights may constitute a serious offence that is prosecutable by Law. For further information see: [www.AIB-seeds.com](http://www.AIB-seeds.com).
11. The Buyer shall fully cooperate with Hazera to defend its rights against infringement.

#### ARTICLE 19. NO GENETICALLY MODIFIED ORGANISMS (GMO)

Unless the Products are specifically indicated as GMO, the seeds of the varieties delivered to the Buyer were obtained without making use of techniques of genetic modification that lead to genetically modified organisms to which Directive 2001/18 of the European Parliament and the Council of the European Communities dated 12 March 2001 on the deliberate release into the environment of genetically modified organisms applies. Since it cannot be ruled out that approved GM plants are also cultivated by third parties in the seed production areas, it is not possible to prevent the accidental presence of GM materials completely and to guarantee that the seed lots delivered are free from any traces of GM plants.

#### ARTICLE 20. CONVERSION

1. If any provision of these general terms and conditions is invalidated, that provision will automatically (by operation of law) be replaced by a valid provision that corresponds as closely as possible to the purport of the invalidated provision. The parties must, if necessary, enter into reasonable consultations on the text of that new provision.
2. In that case the other provisions of these general terms and conditions will remain fully valid in so far as possible.

#### ARTICLE 21. SETTLEMENT OF DISPUTES

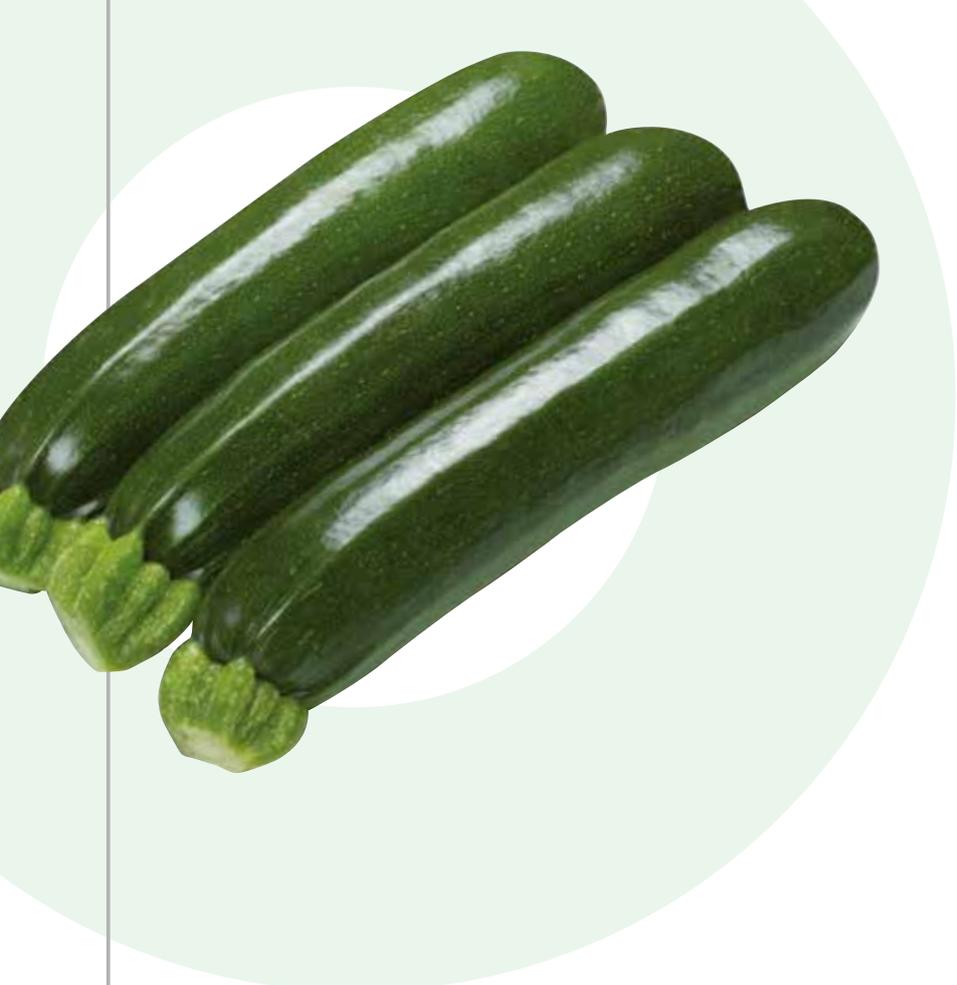
1. In case of a dispute howsoever arising out of or in connection with the General Terms and Conditions of Sale and/or the agreement, the Parties shall, if the dispute cannot be resolved amicably, first refer the dispute to proceedings under the ICC Mediation Rules. If the dispute has not been settled pursuant to the said Rules within 45 days following the filing of a Request for Mediation or within such other period as the parties may agree in writing, such dispute shall thereafter be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules of Arbitration.
2. The place of mediation and of arbitration shall be London, United Kingdom.
3. Hazera shall however be entitled to summon the Buyer at any time to appear before the competent court in the district in which the Buyer has its registered office.
4. In the event that court proceedings arise that are ancillary to ICC Mediation and/or ICC Arbitration the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim or issue arising out of or in connection with the agreement or connected legal proceedings.

#### ARTICLE 22. APPLICABLE LAW AND OTHER APPLICABLE CONDITIONS

Each Party irrevocably agrees that the Agreement, and any dispute or claim howsoever arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims), shall be governed by, and construed in accordance with the law of England and Wales. The applicability of the Vienna Sales Convention is expressly excluded.

#### ARTICLE 23. FINAL PROVISIONS

1. These General Terms and Conditions of Sale replace, exclude, and supersede earlier versions thereof and apply to all agreements concluded after the date on which they have been published on the Hazera website with the address [www.hazera.uk.com](http://www.hazera.uk.com)
2. The Buyer shall not assign its rights and obligations under the agreement to third parties without Hazera's prior written consent.
3. The Buyer agrees that Hazera shall be permitted at all times to assign its rights and obligations under the agreement to third parties.
4. The agreement may only be amended by means of a written document signed by both Parties.



**CLAUSE UK**

P.O. Box 111,  
Market Rasen. LN7 6XY

Tel: 01472 371490

Fax: 01472 371478

[sales.uk@hmclause.com](mailto:sales.uk@hmclause.com)

*Photography © HM. Clause 2018*

Clause UK is a trading division of Hazera Seeds UK Ltd

**HM • CLAUSE**