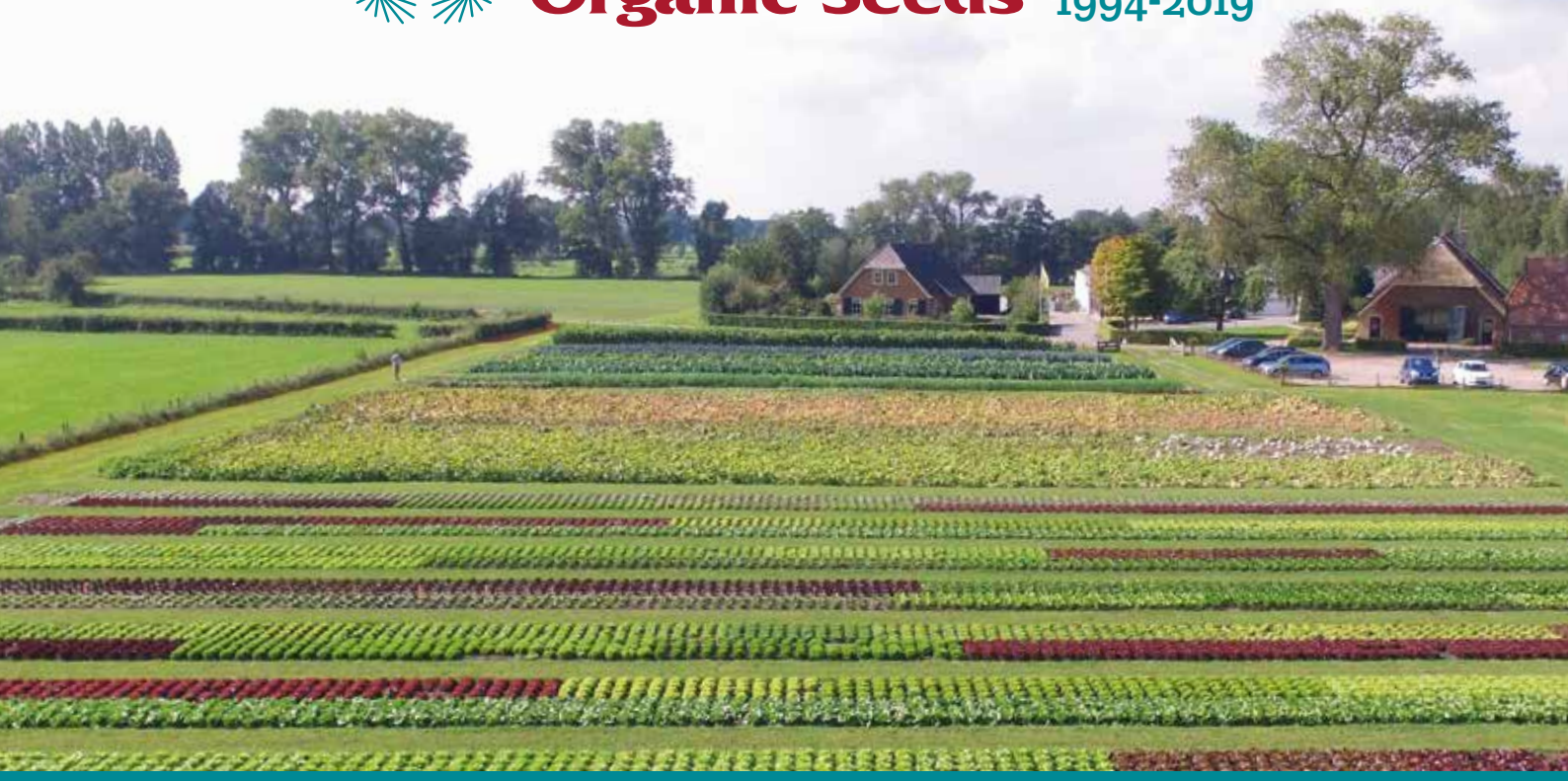
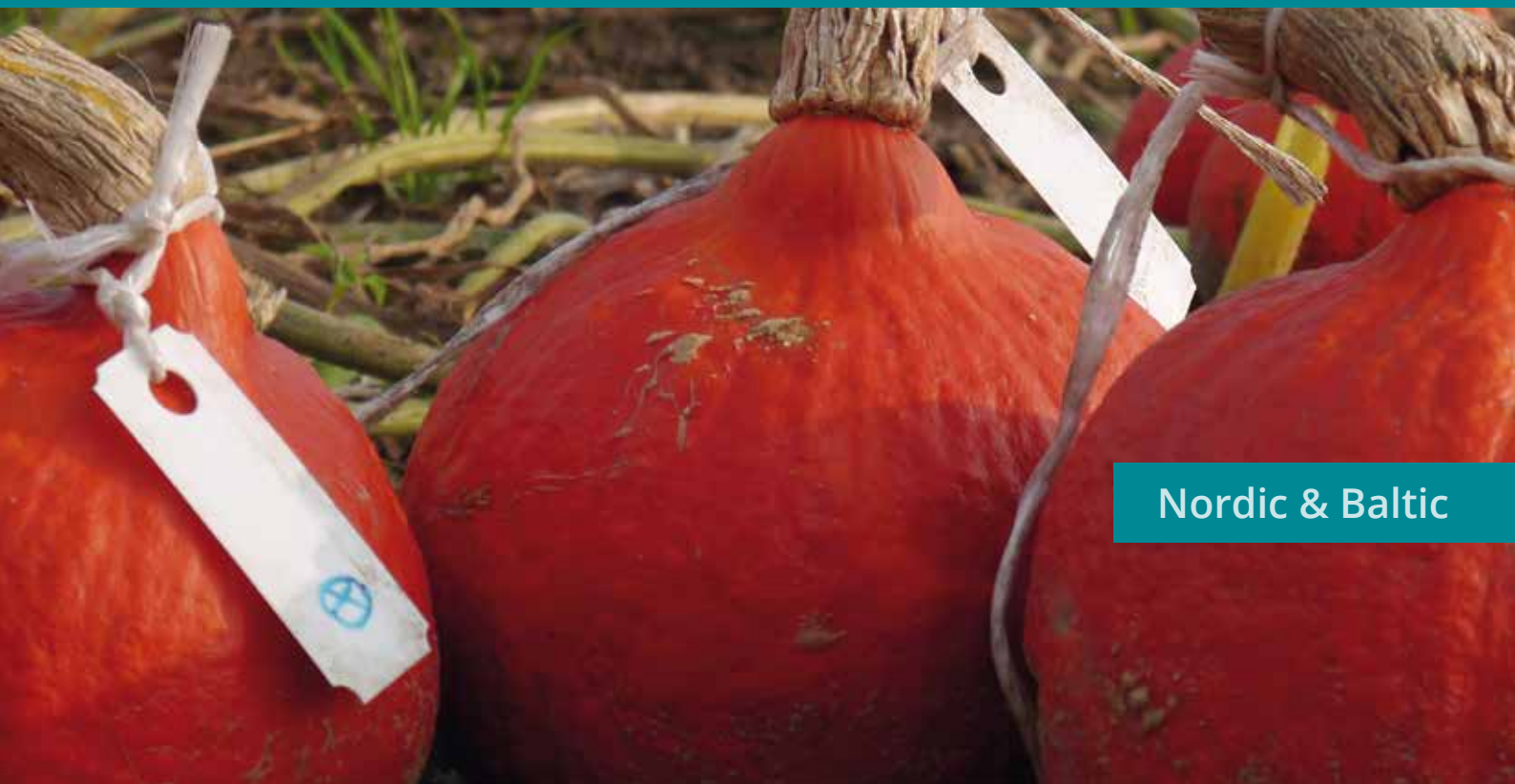
VitaliS® Organic Seeds 25 1994-2019



Catalogue 2019



Nordic & Baltic

Creating an organic world

With great pleasure, we are presenting our catalogue for 2019. Next to the existing assortment, we offer new varieties, among which new lettuce, leek, cucumber and tomato varieties.

In 2019 Vitalis is celebrating its 25th birthday. In 25 years, Vitalis Biologische Zaden has developed from a pioneer to become one of the world's leading companies in organic seed breeding and production. "Creating an organic world" is the mission of Vitalis, with the aim of breeding and producing varieties suitable for organic growers. Strong and reliable varieties, with resistance against diseases and pests. Varieties are tested at Vitalis field trials, but also under local organic growing conditions and research institutes, so we can select varieties most suitable for you!

Vitalis is part of the Enza Zaden B.V. group. Enza Zaden is a leading worldwide vegetable breeding company founded in the Netherlands. By combining the expertise of both companies, we can offer the best varieties and service for you as our customer.

The commercialization and distribution of the organic seeds take place through the Enza Zaden worldwide network. Look for your local dealer and specific information on www.enzazaden.com. Please be aware that not all varieties in this catalogue will be suitable in your country. The availability of varieties differs per country.

Vitalis wishes you a successful and fruitful growing season 2019!

All our seeds are produced organically.
The seeds are grown in compliance with EU-regulation 834/2007 for organic production. Our SKAL registration number is 017981.

This brochure is made from EU Ecolabel certified paper. This means that the paper has been approved under FSC and that energy-saving measures and fewer emissions have been taken into account.

This brochure has been printed with Bio-ink to take the environment into account as much as possible.

Cucumber	Heated	Non-heated	Spring	Summer	Fruitlength (cm)	Resistances Hr	Resistances Ir	Comments
Cucumber Long European Type								
Galaxy F1	✓	✓		✓	30	Cca/Ccu	Px	Vigorous plant. Good setting. Handles less heating well.
Dee Jay F1 (E23L.2335) New	✓		✓	✓	32	Cca/Ccu	Px/CVYV/CGMMV	Long and fast plant with nice fruits with good length. With good virus-resistance.
Dee Lite F1	✓			✓	31	Ccu	Px/CMV/CVYV/CGMMV	Green Mottle Mosaic resistant variety for summer and autumn. With good virus-resistance.
Dee Zire F1	✓			✓	31	Ccu	Px/CMV/CGMMV	Green Mottle Mosaic resistant variety for summer. With good virus-resistance.
Kalunga F1		✓	✓	✓	31	Cca/Ccu	Px	Flexible, mid-early, easy to grow.
Sumapol F1 New	✓			✓	30	Ccu	Px	Early first fruit and easy fruit release. Good fruit colour and length.
Torreon F1	✓		✓	✓	33	Cca/Ccu	Px	Medium strong vigour, early.
Tyria F1		✓	✓	✓	34	Cca/Ccu	Px	Strong vigour, strong roots.
Cucumber Mini								
Katrina F1	✓	✓	✓		17	Ccu	Px/CMV/CVYV	Standard. Strong vigour. Multi fruiting.
Picolino F1	✓	✓	✓	✓	14	Cca/Ccu	Px/CMV/CVYV	Adaptable, productive, multi fruiting.

HR: High Resistance | IR: Intermediate Resistance. For an explanation of the resistance codes displayed please see page 9.







Tomato	Mean fruit Weight (g)	Heated	Non-heated	Tunnel	Truss	Resistances			Comments
						Hr	Ir	Tr	
Beef									
Bellfort F1 New	320		✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0-2	TSWV/Ma/Mi/Mj		Strong and open plant with strong root system. Early and high production.
Dimerosa F1 New	250		✓			ToMV:0-2/ToANV/Ff:A-E/Aal/Va:0/Vd:0/Fol:0,1	TSWV/TYLCV/Ss		Pink fruits. Early and good production.
Forenza F1 New	220	✓				ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1	On/Ma/Mi/Mj		Powerfull, but labour friendly plant-type. Very early harvest.
Rally F1	230		✓	✓		ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1	TSWV/Ma/Mi/Mj		Very early, flat-round fruits.
Normal, round									
Avalantino F1	75	✓	✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For	On	Si	Excellent taste. Nice truss.
Sparta F1	110		✓	✓		ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1	Ma/Mi/Mj		All round variety, good taste.
Codino F1	110	✓	✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For	TSWV/On	Si	Open plant. Nice truss.
Bocati F1	110	✓	✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For	On	Si	Easy setting, useful resistance package.
Chelino F1 New	110	✓			✓	ToMV:0-2/ToANV/Ff:A-E/Va:0/Vd:0/Fol:0,1/For	On/Ma/Mi/Mj	Si	Semi jointless with full resistance. Very attractive fruit quality.
Maxeza F1 New	130	✓			✓	ToMV:0-2/Ff:A-E/Fol:0,1/For	On	Si	Good and easy setting and fast fruit ripening.
Cocktail									
Annamay F1	40	✓	✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1	On	Si	Nice truss, high yield.
Devotion F1	55	✓	✓		✓	ToMV:0-2/Va:0/Vd:0/Fol:0,1/For	Ma/Mi/Mj	Si	Strong against russetting and goldspeck.
Temptation F1	65	✓			✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For		Si	Eight fruits per truss, very nice taste.
Cherry									
Perlati F1	19	✓	✓	✓		ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1	On/Ma/Mi/Mj	Si	Very sweet and many resistances.
Sakura F1	22		✓	✓	✓	ToMV:0-2/Ff:A-E/Fol:0,1	Ma/Mi/Mj	Si	All round variety, vigorous, high yield.
Plum, small, large									
Garincha F1 New	12	✓				ToMV:0-2/Fol:0,1	TSWV/Ma/Mi/Mj		Intense sweet tasting fruits. Strong against fruit fall.
Santasian F1	12	✓	✓	✓		ToMV:0-2/Fol:0			Best real mini plum, robust product.
Gustafano F1 New	25	✓			✓	ToMV:0-2/Ff:A-E/Fol:0,1		Si	Mini plum with nice shape and excellent taste. Good resistance.
Matthew F1	34	✓				ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For		Si	Orange coloured mini plum.
Ardiles F1	35	✓	✓	✓	✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1/For	On/Ma/Mi/Mj	Si	Midi plum. Very nice truss.
Loreto F1	80	✓	✓		✓	ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0,1			Vigorous, good production.
San Marzano									
Pozzano F1	135		✓	✓		ToMV:0-2/Va:0/Vd:0/Fol:0,1			Non-greenback. Good fruit quality.
Rootstock									
Estamino F1		✓	✓			ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0-2/For	TSWV/Pl/Ma/Mi/Mj		Powerful and generative.
Fortamino F1		✓	✓			ToMV:0-2/Ff:A-E/Va:0/Vd:0/Fol:0-2/For	TSWV/Pl/Ma/Mi/Mj		Generative. Performs well in stress, heat and drought.

HR: High Resistance | IR: Intermediate Resistance. | TR: Tolerance. For an explanation of the resistance codes displayed please see page 9.

Pepper	Type	Heated	Non-heated	Fruitsize (mm)	Resistances		Comments
					Hr	Ir	
Blocky Red/Green							
Artega F1		✓		70-75	Tm:0-2		Strong crop. Fast colouring, quality fruits.
Ferrari F1		✓	✓	75-80	Tm:0-2		Reliable. Vigorous.
Bendigo F1			✓	75-80	Tm:0		Easy grower in NW-Europe. For cold greenhouse.
Maranello F1		✓		85	Tm:0-2		Compact plant type. Easy setting.
Blocky Orange							
Orbit F1		✓		85-90	Tm:0-3		Early and high yielding variety. Firm, heavy fruits.
Blocky Yellow							
Fiesta F1		✓	✓	75-80	Tm:0-2		Regular setting, quality fruits.
Gialte F1		✓		80-85	Tm:0-3		Fast. High yield and excellent shelflife.
Sweet Conical							
Cooper F1		✓	✓	45x190	Tm:0-3		Red. Generative. Fast. Strong on blossom end rot.
Oranos F1		✓	✓	35x125	Tm:0		Orange, good tasting pepper.
Guernsey F1 New		✓	✓	35x145	Tm:0-2		Orange. Remarkable flavour. Vigorous, open and quite compact plant.
Jersey F1 New		✓	✓	45x190	Tm:0		Yellow fruits with consistent quality and size. Brix 8.5.

HR: High Resistance | IR: Intermediate Resistance. For an explanation of the resistance codes displayed please see page 9.







Lettuce

Lettuce	Colour 1=green 2=red	= Greenhouse = Open field	Season				Resistances		Comments
			Spring	Summer	Autumn	Winter	Hr	Ir	
Butterhead Lettuce									
Analotta	1		✓		✓		Bl:16-35EU/Nr:0/Pb	LMV:1	Large frame, good field holding ability, nice base.
Aferdita (E01D.30345) New	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Strong on bolting. Long harvesting window.
Iceberg Lettuce									
Etude	1		✓				Bl:16-27,29,32,34EU		Early, medium sized with a round head, upright.
Elmundo	1			✓			Bl:16-35EU/Nr:0		Reliable summer variety, slow filling and easy to cut.
Eduardo	1			✓	✓		Bl:16-35EU/Nr:0		Reliable late spring until late autumn, proved itself during cold summer.
Danilo (E01E.10852) New	1			✓			Bl: 16-35EU/Nr:0		Slow filling Elmundo type. Nice layering and small cut surface. Good on sandy soils.
Gonzalo	1			✓			Bl:16-35EU/Nr:0/Pb		Compact Elmundo type, also working well under bird-net protection.
E01E.10845 New	1			✓	✓		Bl: 16-35EU/Nr:0/Pb		Medium large variety with good fieldholding ability. Slow bolting and strong against tipburn.
Batavia Lettuce Open									
Olana	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Good colour, volume and weight. Wide window use.
Ozeka	1		✓	✓	✓		Bl: 16-35EU/Nr:0	LMV:1	Shiny green, course leaves, strong against yellowing. Strong base with small cutting surface.
Lioba	2		✓	✓	✓		Bl: 16-27,29,32,34EU	LMV:1	Red Batavia with upright planttype and good bolting tolerance.
Romaine Lettuce									
Jeluna	1		✓	✓	✓		Bl:16-32,34EU/Nr:0		Large cos, strong on internal tipburn.
Jara (E01G.10647) New	1		✓	✓	✓		Bl: 16-35EU/Nr:0/Fol:1		Very upright midi romaine with well closed top. Strong against tipburn.
Rougana New	2		✓	✓	✓		Bl: 16-35EU/Fol:1/Nr:0	LMV:1	Triple cherry red midi Romaine. Nice yellow, slightly red heart. Good weight and volume.

HR: High Resistance | IR: Intermediate Resistance. For an explanation of the resistance codes displayed please see page 9.










Lettuce

	Colour 1=green 2=red	= Greenhouse = Open field	Season				Resistances		Comments
			Spring	Summer	Autumn	Winter	Hr	Ir	
Romaine Lettuce Mini									
Xamena	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1/Ss	Mini cos. 1-2 cm shorter than Xenalora. High quality.
Xenalora	1		✓	✓	✓		Bl:16-32,34EU/Nr:0	LMV:1/Ss	Xenalora is slightly longer and can offer size in periods where others may be too short.
Xalbadora	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Full resistant Xanadu type.
Xiomara	1		✓	✓	✓		Bl:16-35EU/Fol:1/Nr:0	LMV:1	Faster Xamena type. Suitable for net-protection.
Ximenes	1		✓		✓		Bl:16-35EU/Nr:0	LMV:1	Fast dark-green and shiny mini romaine for the first and last plantings.
Moonred	2			✓	✓		Bl:16-26,28-35EU	LMV:1	Mini with deep-red colour in contrast to fresh green bottom.
Little Gem Lettuce									
Carterham	1		✓	✓	✓		Bl:16-35EU/Nr:0/Pb	LMV:1	Dark green. Maureen type with full resistance.
Alborada New	1		✓	✓	✓		Bl:16-35EU/Fol:1/Nr:0		8-10 cm little gem with good quality yellow hearts.
Alcazaba New	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1/Ss	8-10 cm little gem with good shape and size. Strong against internal tipburn.
Battlestar New	2		✓	✓	✓		Bl:16-35EU/Fol:1/Nr:0	LMV:1	10-12 cm red little gem with good resistance.
Oakleaf Lettuce									
Alzevir	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Fast filling, flat growth and long harvest window.
Alonix (E01L.30445) New	2		✓	✓	✓		Bl: 16-35EU/Nr:0/Pb		Attractive red glossy colour. Strong against tipburn and bolting.
Lollo Rossa & Lollo Bionda									
Ilema	1		✓	✓	✓		Bl:16-33EU/Nr:0/Pb	LMV:1/Fol:1	Green lollo with good shelf life.
E01L.30441	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1/Fol:1	Bionda with good volume and resistance to internal tipburn.
Loka	2		✓	✓	✓		Bl:16-26,28-33,35EU/Nr:0	Fol:1	Cherry red Lollo Rossa for whole season.
Babyleaf									
Aerostar	1		✓	✓	✓		Bl:16-27,29,32,34EU	LMV:1	Fast green romaine for babyleaf.
Clearwater New	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Green oakleaf with firm leaves.
Celinet	1		✓	✓	✓		Bl:16-35EU/Nr:0	LMV:1	Green batavia. Flexible leaves with good frill.
Rosalo	2		✓	✓	✓		Bl:16-35EU/Nr:0		Shiny dark red babyleaf with excellent leaf structure and frill.
Sadawi	2		✓	✓	✓		Bl:16-35EU/Nr:0		Red oakleaf type for babyleaf.

HR: High Resistance | IR: Intermediate Resistance. For an explanation of the resistance codes displayed please see page 9.






Various Crops		Resistances		Comments
		Hr	Ir	
Leafy Vegetables				
Curled Endive (Cichorium endivia)	**Myrna**			Reliable and good sized.
	Benefine			Reliable TFM-type with attractive shiny dark colour.
Spinach (Spinacea oleracea)	**Acadia F1**	Pfs:1-13,15,16		Main season spinach with medium sized oval shaped leaves.
Garden Cress (Lepidium sativum)	**Sprint**			Grown as seedlings, mustard family.
Fruit Vegetables				
Eggplant (Solanum melongena)	**Bartok F1**			Heated/non heated greenhouse. Excellent fruit quality.
	Mirka F1			Tunnel or open field, strong vigour.
Wintersquash (Cucurbita maxima)	**Bright Summer F1**		ZYMV/WMV/PRSV	F1 hybrid, very high yield. Fruit weight 0.5 - 1.2 KG.
	Uchiki Kuri			Orange fruits, early maturing, standard. Fruit weight around 1.0 - 1.5 KG.
	Orange Summer F1			F1 hybrid with high yield, orange fruits. Fruitsize 1.2 - 1.8 KG.
Wintersquash (Cucurbita moschata)	**Early Butternut**			Open pollinated Butternut.
	Havana F1		Px/ZYMV	F1 hybrid. Fruits 1.0 - 1.5 kg. Good storability and high yield.
	Tiana F1		ZYMV	F1 hybrid with high yield, fruits 1.0 - 1.5 kg.
	Musquée de Provence			Traditional French variety, large fruits.
Zuchini/Courgette (Cucurbita pepo)	**Yellowfin F1**		Px/CMV	Yellow squash.
	Dunja F1		Px/ZYMV/WMV/PRSV	Dark green, multiresistant to virusses.
	Zelia F1		Px/CMV/ZYMV/WMV/PRSV	Mid green variety. Multi resistant to virus including CMV.
	Ardendo174 F1 New		Px/ZYMV/WMV/PRSV	Light green fruits. High yield of good quality.
Melon (Cucumus melo)	**Artémis F1**	Fom:0,1,2	Px:1,2,5/Ag	Charentais type, for late tunnel and early openfield.
	Tirreno F1	Fom:0,1,2/MNSV	Px:1,2,5	Italian Netted type, late tunnel crop.

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Various Crops		Comments
Cabbage (Brassica oleracea)		
Kohlrabi	Vikora F1	For open field, all season.
Bulb and Root Vegetables		
Leek (Allium ampeloprasum)	Chinook F1	Early summer variety offering long shank and fast growth.
	Comanche F1 New	Summer/ autumn variety with long shank and very upright growth.
	Cherokee F1	Very upright autumn variety. Healthy and nice blue-green colour.
	Navajo F1	Mid-late to late.
	Blauwgroene Herfst* Axima	Mid-late to late.
	Blauwgroene Herfst* Tadorna	Late, overwintering.
	Blauwgroene Winter* Atlanta	Winter and overwintering.
Fennel (Foeniculum vulgare)	Preludio F1	Hybrid fennel with nice round uniform bulb.
Red Beet (Beta vulgaris)	Alvro Mono	Early, monogerm beetroot for bunching.
Herbs		
For our organic herb seed, please contact your local Vitalis dealer.		









Resistances

VitaliS® 25 Organic Seeds 1994-2019

Scientific name	English name	Code	Scientific name	English name	Code
Lettuce					
Viruses			Insects		
Lettuce mosaic virus	Lettuce mosaic	LMV	Macrosiphum euphorbiae	Potato aphid	Me
Fungi			Nasonovia ribisnigri	Lettuce leaf aphid	Nr
Bremia lactucae	Downy mildew	Bl	Pemphigus bursarius	Lettuce root aphid	Pb
Sphingomonas suberifaciens (ex Rhizomonas suberifaciens)	Corky root	Ss			
Spinach					
Fungi					
Peronospora farinosa f.sp. spinaciae	Downy mildew	Pfs			
Pepper					
Viruses			Bacteria		
Chili veinal mosaic virus	Chili veinal mosaic	ChiVMV	Ralstonia solanacearum	Bacterial wilt	Rs
Cucumber mosaic virus	Cucumber mosaic	CMV	Fungi		
Pepper mottle virus	Pepper mottle	PepMoV	Fusarium oxysporum f.sp. capsici	Fusarium wilt	Foc
Pepper yellow mosaic virus	Pepper yellow mosaic	PepYMV	Phytophthora capsici	Buckeye fruit and root rot	Pc
Potato Y virus	Potato Y	PVY	Leveillula taurica (anamorph: Oidiopsis sicula)	Leveillula taurica	Lt
Tobacco etch virus	Tobacco etch	TEV	Nematode		
Tomato spotted wilt virus	Tomato spotted wilt	TSWV	Meloidogyne incognita	Root-knot	Mi
Tobamovirus group			Meloidogyne arenaria	Root-knot	Ma
Pepper mild mottle virus, Tobacco mild green mosaic virus, Tobacco mosaic virus, Tomato mosaic virus		Tm:0-3	Meloidogyne javanica	Root-knot	Mj
Bacteria					
Xanthomonas campestris pv. vesicatoria	Bacterial spot	Xcv			
Tomato					
Viruses			Fungi		
Cucumber mosaic virus	Cucumber mosaic	CMV	Fusarium oxysporum f.sp. lycopersici	Fusarium wilt	Fol
Pepino mosaic virus	Pepino mosaic virus	PepMV	Fusarium oxysporum f.sp. radicis-lycopersici	Fusarium crown and root rot	For
Tobacco mosaic virus	Tobacco mosaic	TMV	Leveillula taurica (anamorph: Oidiopsis sicula)	Powdery mildew	Lt
Tomato spotted wilt virus	Tomato spotted wilt	TSWV	Oidium neolycopersici (ex Oidium lycopersicum)	Powdery mildew	On (ex Ol)
Tomato mosaic virus	Tomato mosaic	ToMV	Verticillium albo-atrum	Verticillium wilt	Va
Tomato yellow leaf curl virus	Tomato yellow leaf curl	TYLCV	Verticillium dahliae	Verticillium wilt	Vd
Bacteria			Nematode		
Clavibacter michiganensis subsp. michiganensis	Bacterial cancer	Cmm	Meloidogyne arenaria	Root-knot	Ma
Xanthomonas vesicatoria (Xanthomonas campestris pv. vesicatoria)	Bacterial spot	Xcv	Meloidogyne incognita	Root-knot	Mi
Ralstonia solanacearum	Bacterial wilt	Rs	Meloidogyne javanica	Root-knot	Mj
Fungi			Abiotic Stress		
Fulvia fulva (ex Cladosporium fulvum)	Leaf mold	Ff (ex Cf)		Silvering	Si
Melon					
Viruses			Fungi		
Melon necrotic spot virus	Melon necrotic spot	MNSV	Podosphaeria xanthii (ex Sphaerotheca fuliginea)	Powdery mildew	Px (ex Sf)
Fusarium oxysporum f.sp. melonis	Fusarium wilt	Fom	Golovinomyces cichoracearum (ex. Erysiphe cichoracearum)	Powdery mildew	Gc
Cucumber					
Viruses			Bacterial		
Beet pseudo yellowing virus	Beet pseudo yellowing virus	BPYV	Pseudomonas syringae pv. lachrymans	Angular leaf spot	Psl
Cucumber green mottle mosaic virus	Cucumber green mottle mosaic	CGMMV	Fungi		
Cucumber mosaic virus	Cucumber mosaic	CMV	Colletotrichum orbiculare	Anthracnose	Co
Cucumber vein yellowing virus	Cucumber vein yellowing	CVYV	Corynespora cassiicola	Corynespora blight and target spot	Cca
Cucurbit yellow stunting disorder virus	Cucumber yellowing stunting disorder	CYSDV	Fusarium oxysporum f.sp. cucumerinum	Fusarium wilt	Foc
Papaya ringspot virus	Papaya ringspot	PRSV	Fusarium oxysporum f.sp. radicis-cucumerinum	Fusarium crown and root rot	For
Watermelon mosaic virus	Watermelon mosaic	WMV	Podosphaeria xanthii (ex Sphaerotheca fuliginea)	Powdery mildew	Px (ex Sf)
Zucchini yellow mosaic virus	Zucchini yellows	ZYMV	Pseudoperonospora cubensis	Downy mildew	Pcu
Squash / Courgette					
Viruses			Fungi		
Cucumber green mottle mosaic virus	Cucumber green mottle mosaic	CGMMV	Podosphaeria xanthii (ex Sphaerotheca fuliginea)	Powdery mildew	Px (ex Sf)
Papaya ringspot virus	Papaya ringspot	PRSV	Fusarium oxysporum f.sp. cucumerinum	Fusarium wilt	Foc
Squash mosaic virus	Squash mosaic	SqMV	Fusarium oxysporum f.sp. lagenariae	Fusarium wilt	Fol
Zucchini yellow mosaic virus	Zucchini yellows	ZYMV	Fusarium oxysporum f.sp. melonis	Fusarium wilt	Fom
Watermelon mosaic virus	Watermelon mosaic	WMV			
Cucumber mosaic virus	Cucumber mosaic	CMV			
Pumpkin					
Viruses			Fungi		
Zucchini yellow mosaic virus	Zucchini yellows	ZYMV	Podosphaeria xanthii (ex Sphaerotheca fuliginea)	Powdery mildew	Px (ex Sf)
Cucumber mosaic virus	Cucumber mosaic	CMV			
Watermelon mosaic virus	Watermelon mosaic	WMV			
Papaya ringspot virus	Papaya ringspot	PRSV			

General Terms and Conditions of Sale (Vitalis ref. no. EX2015)

Article 1 - Definitions

1. Buyer shall mean the natural person or legal entity entering into a contract of sale with Vitalis for the purchase of Products.
2. Vitalis shall mean Vitalis Biologische Zaden B.V. having its registered office in (7383 RG) at Hengelderweg 6, Voorst and registered at the Chamber of Commerce.
3. Vitalis and Buyer hereinafter together referred to as the Parties and individually as Party.
4. Incoterms shall mean the Incoterms published by the International Chamber of Commerce in Paris (ICC) and currently in use.
5. Intellectual Property Rights shall mean all current and future 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.
6. Naktuinbouw shall mean the Netherlands Inspection Service for Horticulture having its registered office at Sotaweg 22, Postbus 40, 2370 AA Roelofarendsveen, The Netherlands.
7. Order Confirmation shall mean the written confirmation of acceptance by Vitalis of the Purchase Order, by means of letter, email or packing note.
8. Offer shall mean particular terms applicable to a specific sale proposed by Vitalis to the Buyer.
9. Plant Material shall mean all plants and crops, produced or cultivated out of the Products, and destined for human (and animal) consumption.
10. Products shall mean seeds and planting material delivered by Vitalis to the Buyer.
11. 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 pests and/or diseases.
12. Price List shall mean an overview of the selling prices of Products that Vitalis publishes and distributes from time to time.
13. Purchase Order shall mean an instruction for the purchase of Products placed by Buyer.
14. Resistance Terminology shall mean the information and terminology provided in the Schedule.
15. Schedule shall mean the annex to the Agreement and to these General Terms and Conditions of Sale.
16. Product Specifications shall mean the information published on the Vitalis websites and pages.

Article 2 - Applicability of These General Terms and Conditions

1. These General Terms and Conditions of Sale, including the Schedule, shall apply to and be part of all Order Confirmations and Offers from Vitalis to the Buyer relating to Products and are together hereinafter referred to as the "Agreement", unless expressly provided otherwise in the Agreement.
2. The applicability of the Buyer's general (purchase) terms and conditions is herewith explicitly excluded.
3. Vitalis reserves, under its sole discretion, the right to change these Terms and Conditions of Sale from time to time. A new version of The Terms and Conditions of Sale will be applicable and govern the purchase(s) from the time on which Vitalis informed the Buyer of the new version, provided that purchases that are already concluded, will be in accordance with the earlier existing version of The Terms and Conditions of Sale.
4. Any provision of these General Terms and Conditions of Sale that is ruled to be null, void or invalid by a final court judgment or administrative order and is no longer open to appeal, shall be replaced by a provision that approximates as much as possible the purpose and intent of the invalid provision. The invalidity of one of the provisions shall not affect the other provisions agreed by the Parties.
5. A person who is not a party to the Agreement shall not have any rights to enforce its terms or conditions.

Article 3 - Purchase Order and Order Confirmation

1. Vitalis agrees to sell Products to the Buyer at the rates set forth in Vitalis's Price List or as determined in an Offer.
2. Any Offer made by Vitalis is non-binding and will lapse in any case after five working days, or any other specified time stated by Vitalis.
3. An Agreement shall enter into force between Vitalis and the Buyer upon Order Confirmation or upon acceptance of an Offer. No rights or obligations shall therefore arise between the Parties until the Order Confirmation has been sent or an Offer has been accepted.
4. All Purchase Orders are subject to the usual harvest and processing reservations. In the event of aforementioned reservations, Vitalis is not obliged to deliver but will endeavor to deliver pro-rata quantities and/or comparable alternatives, and Buyer shall not be entitled to any compensation of damages or costs.
5. Vitalis shall use its reasonable endeavors to perform according to the Purchase Order. Nevertheless, Vitalis shall at least be entitled to deviate from the Purchase Order placed by the Buyer with respect to size, packaging, quantity or weight.
6. 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 to inform Vitalis of any formalities that must be complied with to enable import. The Buyer shall also provide Vitalis with information on any required certificates, phytosanitary matters, import documents or invoices.
7. Vitalis 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 incurred by Vitalis resulting from or in connection with such failure.

Article 4 - Prices

1. All prices stated by Vitalis in its Price List and/or in an Offer are in Euro's, exclusive of additional charges and costs, including but not limited to handling fees, transport and insurance costs, (quality) certificate costs, value added tax and charges for which Vitalis reserves its rights to invoice Buyer when applicable.
2. All stated prices in the Price List are subject to adjustment by Vitalis. Vitalis reserves the right to unilaterally change the prices. Any new prices will be communicated to the Buyer by Vitalis and substitute earlier listed and/or offered pricing.
3. 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 Parties.

Article 5 - Cancellation

If a Purchase Order is cancelled by the Buyer after an Agreement has been concluded, the Buyer is liable to pay a minimum of 10% of the price that Vitalis would have charged upon delivery, without limiting Vitalis's right to demand compensation of its damage and costs in full.

Article 6 - Shipping

1. Vitalis shall endeavor to ship the purchased Products to the Buyer in accordance with the shipping date mentioned in the Order Confirmation or acceptance of the Offer.
2. The shipping date agreed by the Parties is an indication only and should not be regarded as guaranteed. In the event of delay or failure to ship, the Buyer shall inform Vitalis in writing and shall - as its sole and exclusive remedy - allow Vitalis a further reasonable period of time to ship the Products. In no event shall Vitalis be liable for damage, penalty, loss, injury or expense, due to delay or failure in shipping and/or delivery nor shall Buyer be entitled to terminate the Agreement.
3. Shipping by Vitalis takes place "Carriage Paid To" (CPT, Incoterms) the agreed destination. The Buyer hereby authorizes Vitalis to select the carrier and to charge the cost of transport to the Buyer. The risk of loss of or damage to the Products, as well as any additional costs due to events occurring after the time the Products have been delivered to the carrier is transferred from the Vitalis to the Buyer when the Products have been delivered into the custody of the carrier.
4. When delivering in parts Vitalis will invoice each delivery separately.

Article 7 - Payment

1. The Buyer shall arrange for payment in Euros within thirty (30) days from the date of invoice by transfer into a bank account specified by Vitalis. Any different payment term must be agreed upon between Parties in the Agreement.
2. The Buyer does not have the right to suspend payment or make deductions or set-offs.
3. The Buyer shall be automatically in default without any notice being required, when not timely meeting any payment term.
4. In case of payment in installments, the Buyer shall be in default without any notice being required in the event of any overdue installment and the remaining installments shall become immediately due.
5. Interest at a rate of one percent per calendar month shall be charged to overdue accounts. Vitalis reserves the right to adjust interest rates having notified the Buyer thereof in due time.
6. Vitalis has the right to proceed with extrajudicial collection of overdue accounts without prior notice being required. The Buyer shall pay all costs of extrajudicial collection amounting to at least 15% of the overdue sum payable at a minimum rate of EUR 250 ex VAT.
7. Payments made by the Buyer shall first serve to reduce the extrajudicial costs of collection due at that point, subsequently the outstanding interest and then the outstanding invoices in date order starting with the oldest invoice.
8. Vitalis 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 Vitalis under any Agreement have been made.

Article 8 - Complaints

1. The Buyer shall inspect the Products upon delivery or as soon as possible thereafter. The Buyer shall determine, in accordance with the Agreement, whether:
- the correct items have been delivered;
- the correct quantities have been delivered;
- the items delivered satisfy all quality requirements expressly agreed to in writing by the Parties.
2. The Buyer shall notify Vitalis in writing within five working days after delivery of any visible defect or deficiency. In case of non-visible defects, the written notification must be given within five working days after discovery of the defect.
3. The written notice shall provide the consignment information (seed lot number, the packing slip and the invoice details), the basis for any complaint as well as any supporting evidence (photo's, expert statements etc.) in such a manner that Vitalis or a third party expert can verify the complaint. The Buyer shall maintain records of the use and status of the Products and/or Plant Material. Vitalis is entitled to and the Buyer will unconditionally cooperate at its expense with any inspection, testing or other verification by Vitalis of the Products and/or Plant Material involved.
4. In no event shall the Buyer return the Products unless otherwise agreed by Vitalis in writing.
5. In the event that Vitalis does not receive written notice of a complaint within the applicable time periods, the Buyer shall be deemed to have accepted the Products. All claims for damage or loss not made in writing within the applicable time period shall be deemed waived by the Buyer and the Buyer expressly assumes and accepts all liability for such damage or loss.
6. In the event that the Parties are unable to resolve a dispute regarding the quality of the Products and/or Plant Material, either Party may order an inspection to be performed by Naktuinbouw, with the Party proven to be wrong paying the cost of the inspection. The inspection shall be performed on a certified sample and the findings shall be binding on both Parties, without prejudice to their right to submit disputes concerning the consequences of these findings in accordance with Article 17.
7. The Buyer's exclusive remedy and Vitalis's sole liability under this Article 8 is set out by Article 12, below.

Article 9 - Reservation of Title

1. Vitalis shall retain title to the Products until the Buyer has complied with all its obligations towards Vitalis including but not limited to payment of invoices, contractual interest and extrajudicial costs of collection.
2. The Buyer may use the Products delivered by Vitalis in the ordinary course of business but may not pledge them or the Plant Material to third parties or otherwise use them as security for claims without Vitalis's prior written consent.
3. In the event that the laws of the country where the Products are delivered provide for farther-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 Vitalis's reservation of title in the Products and/or Plant Material is a condition precedent to entering into an Agreement with the Buyer.
4. At the first request of Vitalis, the Buyer shall pledge all the Products and/or Plant Material and all proceeds there from to Vitalis or create any other security satisfactory to Vitalis.

Article 10 - Force majeure

1. In the event of force majeure and without judicial intervention being required, Vitalis 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 Vitalis be liable or required to pay any compensation to the Buyer in relation to such suspension or termination.
2. Force majeure means: any circumstance that could not be reasonably foreseen and/or influenced by Vitalis and as a result of which delivery of all or any of the Products is not reasonably possible or cannot reasonably be required. Force majeure includes but is not limited to war, risk of war, riots, floods, water damage, fire, transport difficulties, unforeseen technical complications, breakdowns, strikes at Vitalis or at any third party engaged by Vitalis, blockades, bans on import or export, full or partial seizure or requisition of stocks at Vitalis, any of its subsidiaries or suppliers by civil or military authorities, lack of transport capacity, non-delivery or late delivery by suppliers of Vitalis, machine breakdowns, destruction and other stagnations in the companies of Vitalis, any of its subsidiaries or suppliers as well as scarcity as a result of which delivery of all or any of the Products is not reasonably possible or cannot reasonably required.
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 Vitalis to deliver to the Buyer a pro rata volume of the order, without prejudice to any other rights of Vitalis under this Article.

Article 11 - Use (License) of the Products and Product Information

1. Vitalis grants the Buyer a non-exclusive, non-transferable and limited license 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 from Vitalis - 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 Vitalis sells and transfers Products to a third party 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 Vitalis, which may rely on them in legal proceedings 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 prior written consent of Vitalis. Such consent will normally be given by Vitalis upon prior written request from Buyer for the cultivation of Plant Material by a third party for the sole benefit of Buyer, subject to any conditions that Vitalis 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 Vitalis about quality, composition, weight, measurement, treatment in the broadest sense, applications and properties of the Products are based as closely as possible on Vitalis's test results and practical experience, however without any guarantee, representation or warranty regarding purpose or performance.
7. The Buyer acknowledges that any information provided by Vitalis in relation to the quality (such as viability, germination, mechanical or genetic purity, seed health) and performance of the Products applies only to the tests done by Vitalis, to the specific seed sample used and to the specific conditions under which the tests were done. The Buyer agrees that the abovementioned information does not constitute an express or implied warranty.
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. Vitalis provides product information to assist the Buyer and under no circumstances shall Vitalis be liable to the Buyer for results deviating from that information. Vitalis shall not be held liable for 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 Vitalis websites and pages.
10. Any and all warranties shall lapse and Vitalis shall not be liable for any Product that has been repacked, treated, conditioned and/or manipulated in any way by the Buyer or by Vitalis or a third party on the Buyer's request.
11. The Buyer acknowledges that Products delivered by Vitalis are not fit for human or animal consumption.

Article 12 - Liability and Indemnity

1. Vitalis shall in no event be liable to 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, Vitalis's liability shall be limited to the amount (excluding VAT) invoiced in respect of the subject Products, and shall, at Vitalis'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 hereby explicitly understands and agrees to this limitation of Vitalis's liability.
5. The Buyer shall indemnify, hold harmless and defend Vitalis 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 attorney fees) incurred by Vitalis arising out of or relating to Buyer's violation or breach of any term of the Agreement, use or misuse of the Products, and/ or the fault, negligence or wilful intent of Buyer.

Article 13 - Intellectual Property Rights

1. The Buyer agrees and acknowledges that, subject to the license provided under Article 11, paragraph 1, the exclusive right, title to and interest in all Intellectual Property Rights on 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 the Vitalis trademarks shall at all times be and remain absolutely vested in Vitalis 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 Vitalis, which accepts such transfer. The Buyer hereby authorizes Vitalis to register and otherwise effect or complete such transfer under the applicable law and shall at Vitalis's request assist in and carry out all actions deemed necessary by Vitalis 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 Vitalis or any of its affiliate.
4. The Buyer may not use Vitalis's trademarks, trade name and/or trade dress for any purpose unless otherwise approved in writing by Vitalis.
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 Vitalis thereof by registered letter.
6. At the written request of Vitalis, the Buyer shall immediately provide Vitalis 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 Vitalis 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 Vitalis 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 Vitalis for the purpose to verify any possible infringement of Vitalis's rights or violation of the Agreement. The Buyer shall allow Vitalis or a person or company appointed by Vitalis to have direct access to 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. The Buyer shall fully cooperate with Vitalis to defend its rights against infringement.

Article 14 Default, Suspension and Termination of the Agreement

1. In the event that a Party fails to perform any of its obligations under the Agreement and such default continues for a period of thirty (30) days after written notice to the defaulting Party specifying the default, the other Party shall be authorized to suspend any further performance of the Agreement or to terminate it out of court by a registered letter, without prejudice to any of its other rights under the Agreement, including but not limited to the right to claim from the Buyer compensation of all its damage and costs resulting from such default.
2. If the Buyer is liquidated, files for bankruptcy or is granted suspension of payments, makes a general assignment of its assets for the benefit of its creditors, becomes subject to receivership or is dissolved, all its payment obligations shall be immediately due and Vitalis shall be authorized to suspend any further performance of the Agreement or to terminate it, without prejudice to its right to claim compensation from the Buyer of all its damage and costs resulting therefrom.
3. If any of the events mentioned in article 14.2 occurs, the Buyer shall immediately inform Vitalis. The Buyer hereby grants Vitalis the right and/or has the obligation to execute, file or record such documents and to take any such actions, necessary to effectuate, enforce or implement the Agreement, and in particular to guarantee by preference the payment obligations.

Article 15 – Final Provisions

1. These General Terms and Conditions of Sale replace earlier versions thereof and apply to all Agreements concluded after the date on which they have been published on Vitalis's website under www.biovitalis.eu.
2. The Buyer shall not assign its rights and obligations under the Agreement to third parties without Vitalis's prior written consent.
3. The Buyer agrees that Vitalis 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.

Article 16 - Applicable Law

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 The Netherlands. The applicability of the Vienna Sales Convention is expressly excluded.

Article 17 - Resolution 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 Amsterdam, The Netherlands.
3. Vitalis 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 The Netherlands 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.

Schedule 1 - Resistance

1. - Terminology and definitions

a. 'Immunity' means not subject to attack or infection by a specified pest or pathogen.
b. '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 of pathogen pressure.
Two levels of resistance are defined:
I. High 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.
II. 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 highly resistant varieties. 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.
c. 'Susceptibility' is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

2. - Information per variety

Resistances in varieties of our crops will be coded (see coding list at www.biovitalis.eu), 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.



VitaliS® 25 Organic Seeds 1994-2019

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