



#### **Carrots - What better crop to be passionate about!**

Carrots make a solid contribution to a healthy, nutritionally-balanced and tasty diet and have universal consumer appeal.

These factors create the widespread and year round demand for carrots that transcends climatic, geographical and cultural boundaries. Global demand for carrots is still rising, and with the global population anticipated to reach nine billion by 2050, the world's appetite for these versatile vegetables will continue to grow.

With more than 100 years of experience, Nunhems the vegetable seeds business unit of BASF, develops and supplies top quality vegetable seeds to growers all over the world. Carrots are a strategic crop for our company, and we are one of the world's top three carrot seed producers. BASF has been breeding a diverse assortment of carrots for more than 50 years and has already successfully developed a wide range of top quality varieties matched to specific global markets. The main target of our breeding program is to look for varieties that will give you high level of sustainability: our two newest varieties Brillyance F1 and Cadance F1 are clear examples of such combination of Resistances and Attractiveness.

In this catalogue, you will find all the information related to our assortment. It has been designed based on your market needs.

Make optimal use of it and don't hesitate to contact our carrots sales specialist if you need more details.

www.nunhems.com



# **Global expertise**

What makes our offer unique is that our organization made up of people highly specialized in carrots.

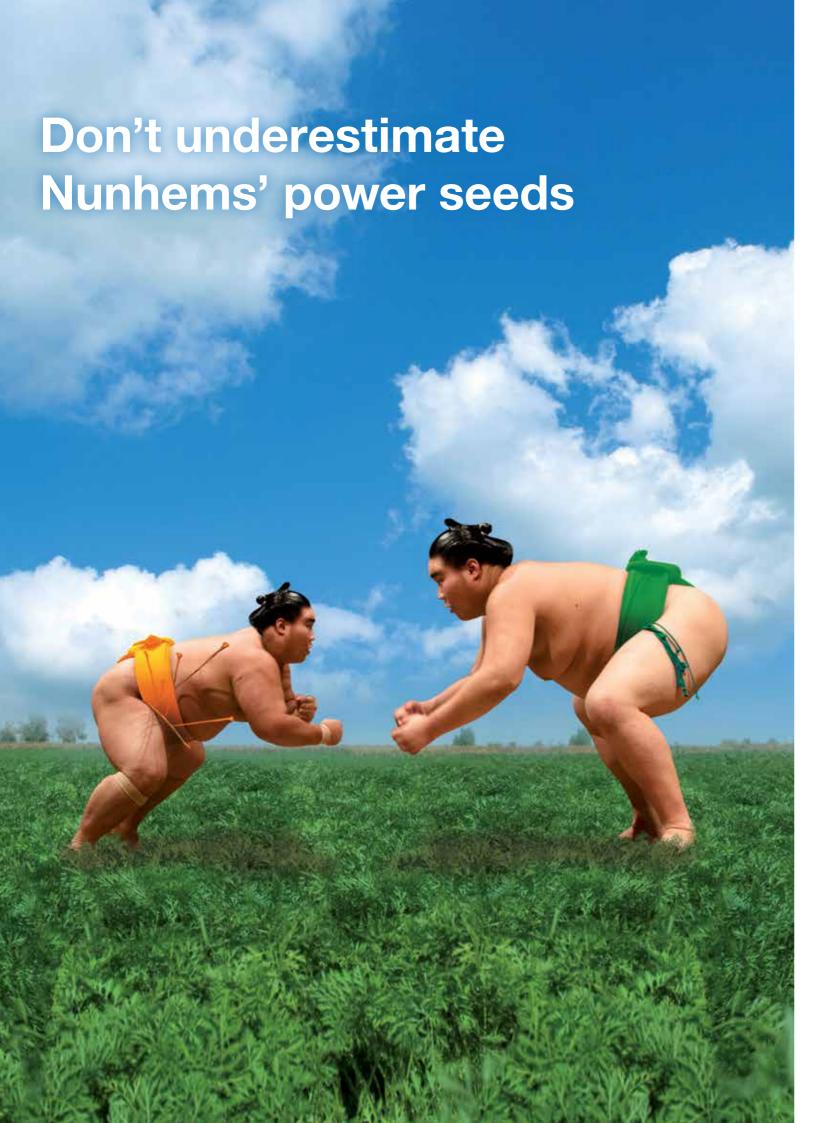
A strong global carrot team includes technical and market specialists, geneticists and breeding, cultivation and commercial experts.

They form a dedicated global network to support the carrot-growing industry. Our specialists work hand-in-hand with carrot growers worldwide. Drawing on their wealth of knowledge about vegetable genetics, growing techniques and market requirements, our specialists provide tailored support to individual growers.

Our unique crop-team structure ensures that the development of carrots and information about them are effectively and efficiently coordinated across borders.

Find the contact in your county on www.nunhems.com

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Carrot growers choose varieties for their growth, yield and quality characteristics. Similarly, the seeds of different varieties have their own characteristic sizes, weights and shapes.

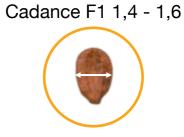


Variety	Seeds Description
Laguna F1	heavy and big seeds
Romance F1	very heavy and big elongated seeds
Brillyance F1	light and small seeds with high germination
Elegance F1	medium heavy and medium big seeds
Cadance F1	medium heavy and medium big rounded seeds



As you can see below, the shape can be very different in the same seeds size.

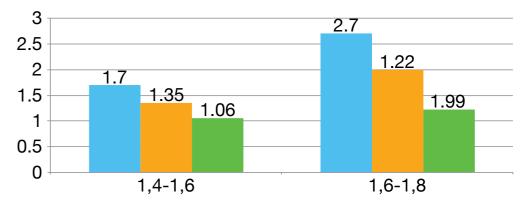




The seed size only refers to the width of the seeds!

Variety comparison on seed weight in 2 different seed sizes





These physical seed characteristics have nothing to do with the quality or performance of the variety, but they do mean your drill has to be correctly calibrated for them.

Whatever the size, weight or shape of Nunhems<sup>™</sup> seeds, one thing all our varieties share is power: the power to get off to a flying start.



The **fresh market** accounts for most of the global production. Varieties within this segment are long-established, traditional, multipurpose favorites. They are sweet and crisp, rounded at the tip and have an inconspicuous core. Growers and retailers strive for a fresh, uniform final product, with good flavor, shape, color and smoothness.

Within this segment the specific requirements vary widely country-by-country according to agronomic traits and consumer use. An important aspect is root size (diameter and length), which should match consumers' use and packing size.

BASF's vegetable seeds portfolio – marketed under the brand Nunhems™ - offers fresh market varieties that provide reliable solutions embracing this range.

In the next pages you will find the varieties adapted for this market.

Our new varieties BRILLYANCE F1 and CADANCE F1 are our 2 new offers in this segment. The combination of resistances and attractiveness!

Find out more: follow the pictogram





The bunching market requires perfection in color, form, length, and shape in both carrot roots and foliage. Good flavor is also required to meet consumer expectations. Growers strive for the highest possible proportion of useable products and varieties that are easy to clean and physically bunch together. We offer an award-winning range of varieties for this segment: Romance F1 is leading this market in Europe. Laguna F1 and Evora F1 are also very strong varieties in the segment.

Simply – the best of the bunch!

Find out more: follow the pictogram





#### **Processing & Juice**

Carrot juice is healthy and growing in popularity globally. Color, yield and long-lasting flavor are priorities in this segment. Both processed carrots and carrot juice are delicate products that require careful attention to keep their flavor and color fresh and attractive during processing. Our varieties in this segment are developed to meet all these needs. Elegance F1, Sirkana F1 with a good color and no 'green shoulders' make a nice variety for juice and processing.

Colored carrots provide interesting, new opportunities in this segment.

Find out more: follow the pictogram



#### Slicing

For the slicing segment, growers aim to maximize the number of slices deliverable per hectare. Slicing carrots must also have a good, long-lasting color. Our slicing varieties include large and long, highly cylindrical carrots with a uniform diameter. They offer the highest yields of useable products. Romance F1 is well established in this segment with its nice cylindrical roots. Brillyance F1 also looks promising in this segment.

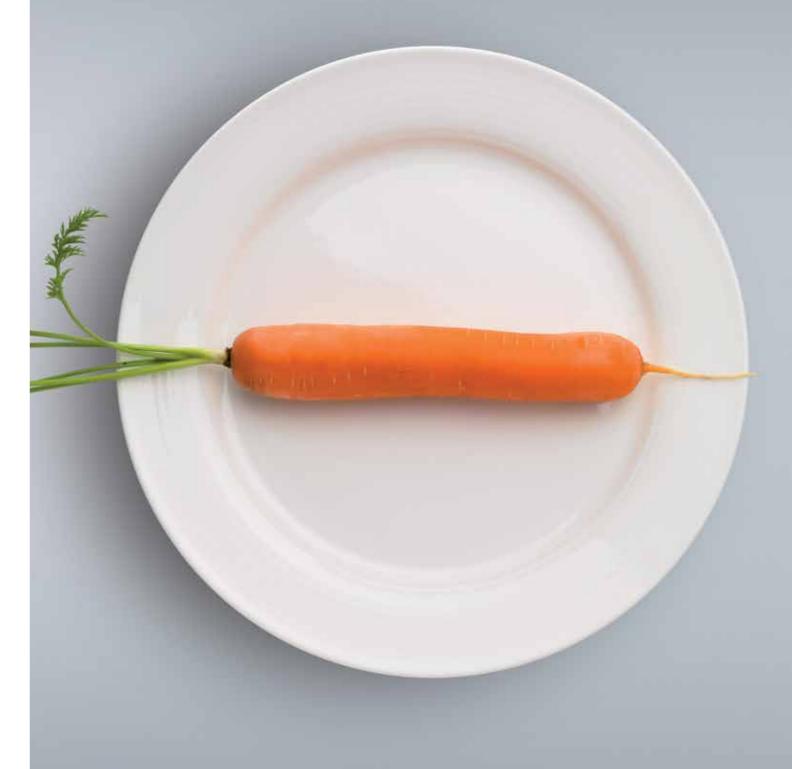
Some colors (Yellowbunch F1) and Imperator varieties provide interesting, new opportunities in this segment.

Find out more: follow the pictogram





# Find out more about the Nantes assortment





# **LAGUNA F1**

# The early high yielding standard

- High netto early yield
- For washing and bunching
- No green shoulders
- Straight carrots
- Strong against breaking
- Early variety

Suitable cool room storage when harvested as young product

- Alternaria dauci
- Powdery Mildew

# **INNOVATION**

# **BRILLYANCE F1**

# The power of attraction

- Unique combination of attractive carrots and disease resistances
- For washing
- No green shoulders
- Very smooth
- Nice leaf inplant
- Late maturity

For cool room storage and medium term soil storage

#### HR:

- Alternaria dauc
- Powdery Mildew
- Cercospora carotae
- Cavity Spot
- Rhexocercosporidium carotae (Acrothecium)
- Resistance to summer bolting



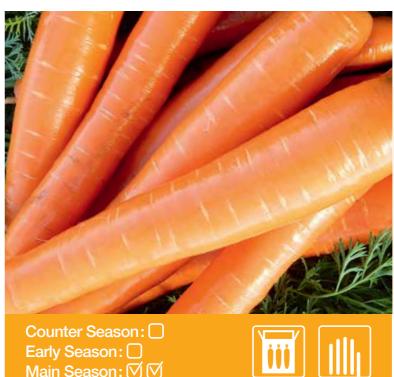
# **ROMANCE F1**

# **Uniformity Excellence**

- High netto yield
- For washing and bunching
- Very uniform and straight carrots
- Strong against breaking
- Very erect dark green foliage with good attachement
- Medium early variety

For cool room storage and short term soil storage

- Alternaria dauci
- Powdery Mildew



Main Season: ☑ ☑







HR - High resistance IR - Intermediate resistance

Main Season: ☑

# **INNOVATION**



# **CADANCE F1**

## **High performance from start** to finish

- Very strong against breaking, growth cracks and splitting
- For washing
- No green shoulders
- Fine diameter carrot
- Late maturity

For cool room storage

#### IR:

- Alternaria dauci
- Powdery Mildew
- Cercospora carotae

#### HR:

Cavity Spot



# **ELEGANCE F1**

## Premium color after storage

- Attractive carrot color and smoothness
- For washing
- Straight and more bulky carrots
- No green shoulders
- Very strong against breaking
- Medium late variety

For cool room storage and long term soil storage

#### IR:

- Alternaria dauci
- Powdery Mildew

■ High bolting resistance so very suitable for the autumn sowings in Southern Europe



# **SIRKANA F1**

#### **Yield and Color**

- Bulky carrots giving high yield potential
- For washing and processing
- Nice dark orange internal color
- Good results in lower densities
- Medium late variety

For cool room storage and short term soil storage

#### IR:

- Alternaria dauci
- Powdery Mildew
- Cercospora carotae

#### HR:

■ High bolting resistance so very suitable for the autumn sowings in Southern Europe



Early Season: Main Season: 

√

√





Main Season: 

✓ 

✓



# **COLTAN F1**

# Tons, tons!!!

- High yield, bulky and heavy roots
- For washing
- High level of resistance to breaking
- Attention for Powdery Mildew control
- Medium late variety

For cool room storage

#### IR:

- Alternaria dauci
- Cercospora carotae



# Counter Season: ♥ ♥

# **EVORA F1**

# The premium bunching

- Very uniform cylindrical carrots
- For bunching and convenience
- Nice short erect foliage type
- Very good bolting resistance

Suitable in high density for snack carrots

#### ID.

- Alternaria
- Powdery Mildew

#### HR

 High bolting resistance so very suitable for the autumn sowings in Southern Europe



M

Main Season: 

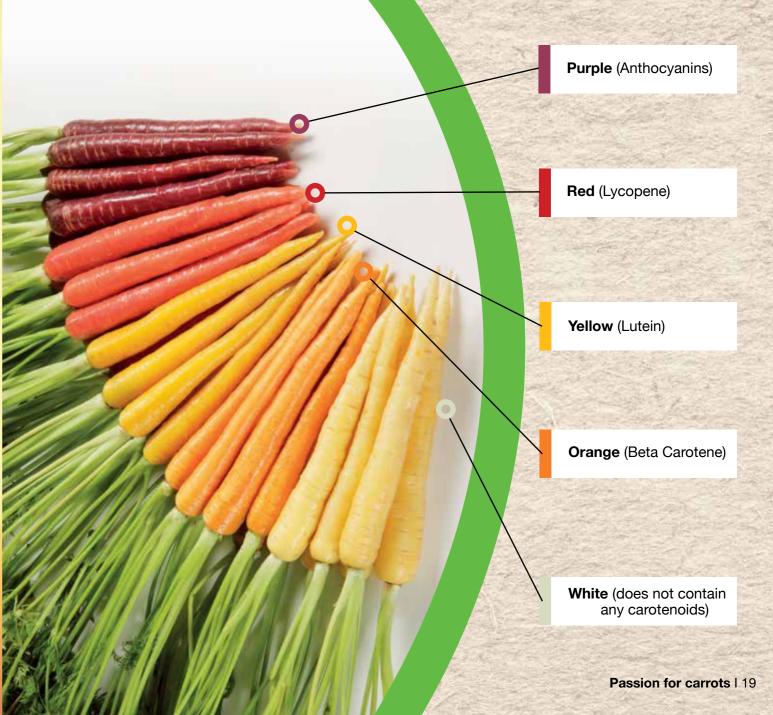
✓ 

✓

Early Season: ☐ Main Season: ☑ ☑



Inside every carrot, you'll find a nutritional powerhouse. This inner strength shows on the surface too. Spanning a full spectrum, a carrot's color reflects the health benefits and key vitamins at their core.







Carrots were originally either purple or white. The orange carrot popular today was introduced later.

Colored carrots can be used fresh (packed or bunch).

It creates new interest for the food industry, which increasingly uses this natural colorant.

Our colored carrot assortment provides a rainbow of new options in this segment for fresh and processed products.



# **SNOW MAN F1\***

- Nice uniform bright white color
- No external and no internal greening
- Big and vigorous foliage type
- Long tapered roots
- (A Few) bolters may occur depending sowing season
- Good flavor



# **CREAMPAK F1**

- Light yellow color
- Very uniform color
- Bulky and blunting carrots with smooth skin
- No external and no internal greening
- Big and vigorous foliage type
- (A few) bolters may occur depending on the sowing season
- Good flavor



# **RUBYPRINCE F1\***

- New color in the assortment
- Cylindrical carrots with early blunting
- Red internal color
- Crispy, good-tasting carrots
- Small and clearly less vigorous foliage than the other colors
- Special attention for sowing dates in relation to bolting; please consult your local BASF contact
- Earlier sowing will result in a high bolting %



# YELLOWBUNCH F1

- Nice bright yellow color
- Tapered roots with medium size
- Big and vigorous foliage type
- (A few) bolters may occur depending on the sowing season
- Good flavor



# **PURPLE ELITE F1\***

- Very nice cylindrical bright purple colored carrots
- Thick wall of purple with yellowish core
- Good foliage
- (A few) bolters may occur depending on the sowing season

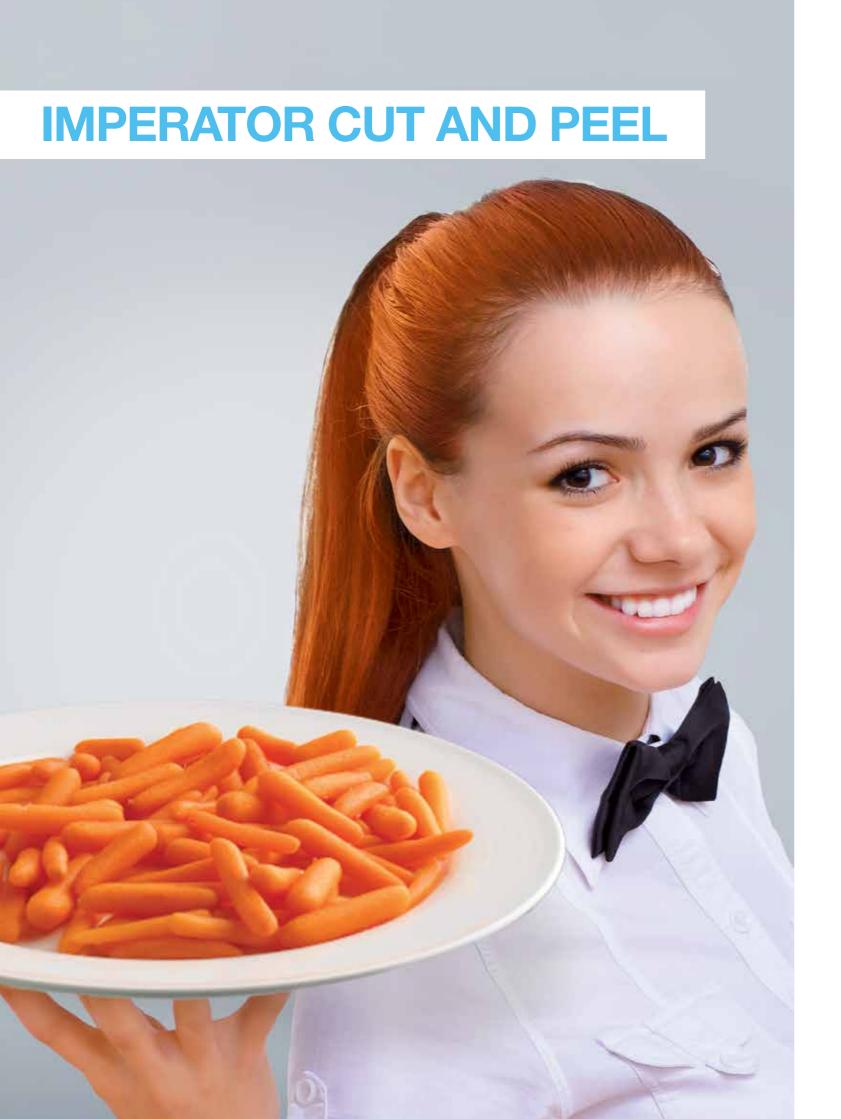


# **NIGHT BIRD F1**

- Full purple carrots
- To be drilled after the longest day
- Careful about the sowing dates; bolters will occur depending on the sowing season



\* Under application for inclusion in the EC Common Catalogue of Vegetable Varieties



Imperator is the main carrot type grown in many countries. High yield and a specific taste and texture are critical traits in Imperator varieties.

This type offers

ready to eat!

opportunities in the

snacking segment with a healthy and convenient product cut and peeled:

SNACKS / JUICES



/ FOOD SERVICE / CONVENIENCE

SNACKS / JUICES

SNACK PREMIUM



# **SUGARSNAX F1**

# **Super sweetness**

- For Cut and Peel
- Excellent flavor
- Crunchy texture
- Slight tapered carrots
- Early



# **UPPERCUT F1**

# **V**igorous

- For Cut & Peel
- Very good flavor
- Crunchy texture
- Cylindrical shape
- Medium early



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#### Advice for cultivation practice

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#### **Product illustrations**

All varieties shown were grown under favorable conditions. Identical results are not guaranteed nor implied for all growing conditions.

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