





A shared vision fit for the future.

As times change, so do tastes and how people consume their meals, snacks, and treats. For instance, more and more vegetables are being bought online and delivered directly to the homes of consumers, innovative varieties are being developed and introduced to help consumers experience new flavors, and traditional mealtimes are giving way to 'on the go' eating moments. Consumers are being educated on the importance of eating in a more healthy and sustainable way while seeking convenience and choice. The digital era has truly transformed the market and the whole supply chain has been encouraged to embrace technology.

Each and every day across the globe, millions of baby carrots are packed and delivered, especially for consumers that are looking for healthy snacks. Fresh washed carrots are displayed in supermarkets or shipped to foodservice companies. Fresh cut carrots are available in schools and for busy families who want to eat healthy but are always in a hurry. Frozen and canned carrots are bought and stored — ready to be added to a healthy meal in the future.

While carrots are a leading seller in the vegetable category, they rely on the whole industry, working as one, to add value and stay ahead of the game. At BASF's vegetable seed business, we've always worked alongside our partners specializing in the genetic science behind breeding carrots, to pack all benefits into every Nunhems seed. Breeding carrots that have an increased yield, overall quality, and disease resistance. Products with the best taste and nutritional value, from a source that treats people and the planet responsibly.

We know the world is a changing place, and we are changing with it. We are committed to understanding the needs of our partners and working together to answer tomorrow's questions, today.

Together, we'll unlock the full potential in the carrot world, increasing value for you — ${\it our business partners}$ — and for consumers. Let's embrace a shared vision, fit for the future.

The BASF Carrot Team





Carrots

What better crop to be passionate about

Carrots make a solid contribution to a healthy, nutritionally-balanced, 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, BASF's vegetable seed business 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 leading carrot seed producers. BASF's vegetable seed business 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 a high level of output for growers and processors, and enjoyable experiences for consumers.

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

Reach out to your BASF carrot representative to learn more.

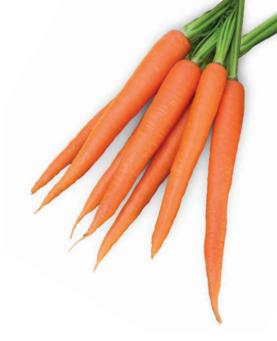
www.nunhems.com





Fresh Carrots

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, tapered 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. They are available to be purchased as a fresh bunched, bagged, jumbo, or table carrot. We have a wide range of varieties that can be tailored to your needs and growing environment.





Cut & Peel

The cut & peel category requires long and slender roots that have a high output of all diameter cuts. Good flavor and texture are also required to meet consumer expectations. Growers strive for the highest possible yield, while also targeting a high proportion of usable 2" cuts. We aim to provide varieties with a high marketable yield, regional adaptability, foliage strength, highly resistant to disease and bolting, excellent flavor, color and texture, and excellent seed quality. We offer a robust selection of varieties that provide one-stop solutions.





Juice & Natural Ingredients

Carrot juice is healthy and growing in popularity globally. Color, yield, long-lasting flavor, and nutrition are key in this segment. Both processed carrots and carrot juice are delicate products that require careful attention to retain their flavor with a fresh and attractive color during processing. Our varieties in this segment are developed to meet these needs. They are rich with color for making juice and processing products. Our colored carrot assortment also provides interesting and new opportunities in this segment as consumer interests change and opportunities grow.



Colored Carrots



For the colored carrot market, we aim to achieve a full spectrum of refined colored carrots to meet the evolving consumer interests. Red, yellow, purple, white, cream, and orange-colored roots catch the eye of consumers daily wanting unique options. These colored carrots are especially fun to cook with and are distinctly different in flavor, texture, appearance, and nutritional properties. We understand the agronomic challenges of growing these unique and exotic varieties and are committed to tackling the challenges with innovative and targeted efforts.







Imperator Assortment

Carrot growers choose varieties for their growth, yield, and quality characteristics.

IMPERATOR GRANDE (P10 – 12)

- Maverick F1
- TrophyPak F1
- Trooper F1
- Rebel F1
- Bulldog F1

IMPERATOR COLORED (P16 – 19)

- CreamPak F1
- PurpleSnax F1
- PurpleElite F1
- RubyQueen F1
- RubyPak F1
- YellowBunch F1
- Snowman F1

IMPERATOR SLENDER (P21 – 22)

- UpperCut F1
- CrispyCut F1
- HighCut F1
- ReadyCut F1

IMPERATOR GRANDE



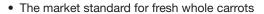
Maverick F1











- Exceptional adaptability and consistency
- Slightly tapered, long roots with good fill
- · Normal maturing with a high percentage of cellos; Root quality makes product useful for other applications
- Popular for commercial organic production; Consistent excellent flavor, smooth skin and very good interior color



TrophyPak F1







- · Early maturing and vigorous cello/jumbo hybrid
- Exceptional adaptability and consistency
- Vigorous and upright foliage with high tolerance to Alternaria dauci and powdery mildew
- Tapered roots with excellent tip fill
- High percentage of cellos while also flexible for use in making jumbos















- Long, tapered, and high yielding cello carrots
- High adaptability and consistency
- Vigorous and upright foliage with high tolerance to Alternaria dauci and powdery mildew
- Normal maturing with a high percentage of cellos
- High percentage of cellos; Oversized are excellent for the jumbo segment





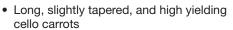












- High adaptability and consistency
- Excellent tip fill
- Vigorous foliage with high tolerance to Alternaria dauci and powdery mildew
- High percentage of cellos; Oversized are excellent for the jumbo segment



Bulldog F1







- · Early maturing and vigorous cello/jumbo hybrid
- Vigorous and upright foliage with high tolerance to Alternaria dauci and powdery mildew
- High yielding tapered roots
- Very adaptable and consistent
- · High percentage of jumbos













IMPERATOR COLORED

















- Bulky and filled out carrots with smooth skin
- No external or internal shoulder greening
- Big and vigorous foliage type
- (A few) bolters may occur depending on the sowing season
- · Excellent flavor



PurpleSnax F1 🧷 🕴









- Purple exterior with small yellow orange core crisp texture and good eating quality
- Foliage and roots are vigorous with early development
- Some bolting in the spring and early summer harvest windows
- Excellent potential for applications in the cut & peel, Coins, Sticks, and other Food Service



Colored Carrots

Inside every carrot, you'll find a nutritional powerhouse that reflects on the surface. 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), as well as processed into convenient cut & peel options. It creates new interest for the food industry, which increasingly uses this natural colorant or texture adding ingredient. Our colored carrot assortment provides a rainbow of new options in this segment for fresh and processed products.

PurpleElite F1 Ø 🖟 🥇 👸

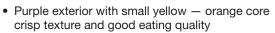












- · Foliage and roots are vigorous with early development
- Some bolting in the spring and early summer harvest windows
- · Excellent potential for applications in the Fresh Market, Cello Pack, Coins, Sticks, and other Food Service











RubyQueen F1 Ø 🖟 🧗 🚆

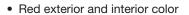












- · Crispy, excellent-tasting carrots
- · Excellent late summer and fall planted red carrot hybrid
- Smaller and clearly less vigorous foliage than the other colors
- · Bolting likely in spring and summer harvest slots



RubyPak F1









- Red exterior and interior color
- · Crispy, excellent-tasting carrots
- Excellent spring planted red carrot hybrid (less bolting than RubyQueen for spring and summer harvest)
- Smaller and clearly less vigorous foliage than the
- Some bolting in the spring and early summer harvest slots

























- Tapered roots with medium size
- Large vigorous foliage type
- Bolting possible in spring harvest slots
- · Good flavor and uniformity



Snowman F1









- Uniform bright white internal and external color
- No external or internal greening
- Large vigorous foliage and roots
- · Long tapered roots
- (A few) bolters may occur depending on sowing season
- · Good flavor



IMPERATOR SLENDER



UpperCut F1











- Ideal for organic production as a result of foliar resistances
- · Excellent option for cut & peel processing
- Vigorous foliage, and good resistance to Alternaria dauci and powdery mildew
- Long roots with very good flavor and crunchy texture



CrispyCut F1







- Highly adaptable carrot
- Excellent option for cut & peel processing
- Tapered shape for cuts of all diameter profiles
- Excellent option organic production as a result of foliar resistances and vigor
- · Long roots with very good flavor and crunchy texture









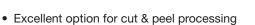


HighCut F1









- Uniform slender root shape for high percent premium cuts 3/8"-5/8" diameter
- · Good flavor and crunchy texture
- Durable roots with less cracking



ReadyCut F1







- Excellent option for cut & peel processing
- Uniform, long, and slender root shape for cuts of all diameter profiles
- High percentage of premium pieces under 5/8" diameter
- · Good flavor and crunchy texture
- Durable roots for lower percentage of cracking and breaking









Committed to Innovation

With over 100 years of carrot experience within our carrot breeding, sales, and product development teams, we believe that understanding the dynamic needs of the growers, processors, and consumers are crucial to our success and yours. We aim to build on our past successes and are actively adapting to new methods, implementing the latest technologies, and accelerating our efforts and developmental processes. Every day, BASF is working hard to bring you the best varieties that provide solutions for the entire value chain



Information provided is based on experience with tests, trials, or practices as well as general observations over multiple years.

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