

# MUSASHIN

VEGETABLE SEED CATALOGUE 2022



**THE MUSASHINO SEED CO.,LTD.**





Musashino delivers superior seed and seedlings from Nipp●n to the world.



## Dear customer

*It is our great hope that our new commercial catalogue will provide our valued customers with new detailed information about our vegetable seeds.*

*We hope you will find it useful and informative in familiarizing you with our quality products.*

*The Musashino Seed Co., Ltd. has, in the 90 years since its founding, accumulated and cultivated its own original know-how, meeting consumer needs by developing high-quality seeds.*

*At our breeding farm established in 2007, we aim to nurture even more high-quality, superior seeds and are actively introducing high-tech, cutting-edge techniques.*

*Our products are widely sold in Japan and also exported all over the world.*

*It is our great honor that our high quality seeds are playing a major role in agricultural development worldwide.*

*The Musashino Seed Co., Ltd. would like to take this opportunity to begin a new partnership with you in providing top quality products.*

*We wish you a prosperous season and hope to soon be of service to you.*

*Truly yours,*



油木 大樹

President Daiju Yuki

The Musashino Seed Co., Ltd.

1958



Miyoshi Breeding & Research Station

*Since our founding in 1931, we have been working with the desire to contribute to agriculture not only in Japan but throughout the world.*

*Even after 90 years of history, we will continue to connect this feeling to the future.*

1961



Headquarters in Ikebukuro





# Musashino Seed A

## 1 Breeding

The purpose of breeding is to develop superior varieties. At our research farm, one by one breeders work aiming to breed new varieties. For breeding research, we always make sure to use the best technology available. In the spring of 2007, we established Niihari Breeding Farm in Tsuchiura City, Ibaraki Prefecture. The farm occupies an area of ten hectares and is home to some of the newest facilities. Here, we promote specialized breeding of vegetables which include varieties for the Japanese domestic market as well as overseas. Throughout our long history, we have developed many superior varieties, making a great contribution to the seed industry. We continue to conduct research and development of new varieties in response to market needs, and introducing new breeding technology.



Office building of Niihari Breeding Farm



R&D Station



Trial Evaluation



## 2 Production

For seed propagation, seed production sites have been set up all over the world in Europe, Oceania, Africa and South America as well as in Japan. With our expert knowledge of state of the art seed propagation technology, we are conducting stable production of high-quality seed. Among the conditions for good seed propagation, the site and weather conditions suitable to the variety are naturally taken into consideration, but it is also essential to fully understand the importance of the healthy nature of the stock seed, for it is from this parent seed that the seed is born. We truly feel we have succeeded in producing a superior level of seed.



# Reliable Global Brand



Production Field

## 3 Quality Management

In recent years, the seed industry has seen greater and greater rises in the level of demand for quality. In response to this, in 2000 we established several high-level warehouses equipped with the newest facilities in Asaka City, Saitama Prefecture. Here, each seed is stored in suitable conditions, which enables us to then market sound and healthy seed free from diseases. We also operate a complete product quality management system, with strict selection, and inspection for seed germination and disease.



Asaka QC Center



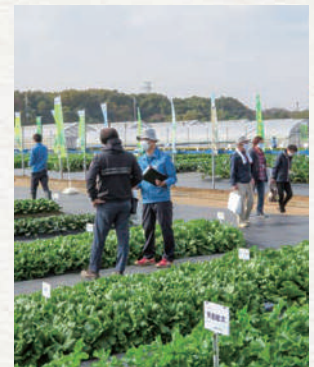
Seed Inspection Room



Low-Temperature and Humidity Storage Facilities

## 4 Sales and Follow-up

Our work is not just the sale of seeds: First and foremost, we think of the incomes of farmers. To be able to fully demonstrate the characteristics of varieties, we conduct various events, local production workshops, and local study groups. In addition, we have strong ties with vegetable producers throughout the world. Furthermore, we have a comprehensive support system that includes the speedy supply of products, to assistance with cultivation, etc.



Field Day Event



# Portfolio



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# Cauliflower ~Brassica oleracea~



F1 Hybrid

## MSD-1315

Excellent performance under heat condition.

- Early maturity 50days after transplanting.
- White dome shape curd with stable performance.
- Curd are well covered with bracts among extra early maturity segment.
- Less physiological disorders under heat and wet condition.



## Cauliflower

F1 Hybrid

### MSD-1191

Extra early maturity with heat tolerance.

- Tropical 40-45days maturity.
- Dome shape and less physiological disorders.
- Excellent heat tolerance.
- Remakable big volume than other extra early cauliflower.



F1 Hybrid

### MSD-1317

Early maturity, pure white curd with excellent dome shape.

- Tropical 45-50days after transplanting.
- Healthy dome shaped curd.
- Thick leaf can keep high vigourous under high temperature.

F1 Hybrid

### MSD-1343

Heat tolerant and wide adaptability.

- Tropical 40-45days maturity.
- Strong heat tolerance.
- Dome shape, firm and white curd.
- Curd are well covered with bracts among extra early maturity segment.





F1 Hybrid

## LASER

Heat and humidity tolerant, extra early maturity.

- Tropical 40-45days maturity.
- Great hot and humidity tolerance from its vigorous root system.
- Curd is dome shaped and smooth.
- Weight about 800g.



F1 Hybrid

## KANSETSU

Early maturity type without abnormal curds.

- Semi tropical 60-65days maturity.
- Vigorous, moderately upright leaves.
- Curd are well covered with wide leaves.
- Curd is round dome shaped, white smooth.
- Weighting 800-900g.

F1 Hybrid

## SETSUYO

Extra early maturity type with white, heavy and uniform curds.

- Tropical 45-50days maturity.
- Upright standing, moderately vigorous with wide leaves.
- Well adaptable to dense planting
- Curd are well covered with bracts among extra early maturity segment.
- Weight about 700g-800g.





## Cauliflower

### F1 Hybrid **MEISETSU**

Extra early maturity type with bracts.

- Semi tropical 50-55days maturity.
- Vigorous, wide leaves, tolerant to excess moisture.
- Curd is dome and smooth, white.
- Weight about 700g-800g.

### F1 Hybrid **HOSETSU**

Early maturity type with pure-white curd of excellent shape, quality and uniformity.

- Can be harvested in 60-65days after transplanting.
- Extremely vigorous with upright and thick leaf.
- Thick and large curd.

### F1 Hybrid

## **MSD-1227**

New wisteria color cauliflower.

- Early maturity 75days after transplanting.
- Curd is flat round shape and smooth surface.
- Color becomes bluish-purple by heat treatment, but good taste.
- Adding good touch of color to salad.



Variety	Maturity (Days after planting)	Plant Shape	Curd Weight(gr.)	Curd Color	Heat Tolerance	Season
F1 Hybrid <b>MSD-1315</b>	50	Semi-Upright	750	Pure White	Strong	Tropical
F1 Hybrid <b>MSD-1191</b>	40-45	Semi-Upright	600	White	Very Strong	Tropical
F1 Hybrid <b>MSD-1317</b>	45-50	Upright	700	Pure White	Strong	Tropical
F1 Hybrid <b>MSD-1343</b>	40-45	Upright	700	Pure White	Very Strong	Tropical
F1 Hybrid <b>LASER</b>	40-45	Upright	800	Pure White	Strong	Tropical
F1 Hybrid <b>KANSETSU</b>	60-65	Semi-Upright	800	Pure White	Medium	Semi Tropical
F1 Hybrid <b>SETSUYO</b>	45-50	Upright	700	Pure White	Very Strong	Tropical
F1 Hybrid <b>MEISETSU</b>	50-55	Semi-Upright	700	Pure White	Medium	Semi Tropical
F1 Hybrid <b>HOSETSU</b>	60-65	Semi-Upright	700	Pure White	Medium	Semi Tropical
F1 Hybrid <b>MSD-1227</b>	75	Semi-Upright	900	Wisteria	Strong	Temperate



# Cabbage ~Brassica oleracea~

F1 Hybrid

## BEAUTY

Beautiful round cabbage.

- Ready for harvest in 55-60days after transplanting.
- Weighs about 1.0-1.5kg.
- Excellent uniformity.
- Slow to crack, and has a long harvesting period.
- Good disease tolerance, suitable for both temperate regions and highlands.



F1 Hybrid

## MSC-1322

Round cabbage for tropical region.

- Can be harvested in 60days after transplanting.
- Round shape head.
- Dark green leaf, good eating quality.

F1 Hybrid

## MSC-1313

Big head round cabbage.

- Weight approx 2-2.5kg.
- 80days maturity cabbage, short core.
- Anti cracking.





## Cabbage



F1 Hybrid **SEIKAN**

Early maturity with heat tolerance.

- Can be harvested in 60-65days after transplanting.
- Strong plant vigor.
- Strong for wet & dry condition.



F1 Hybrid **ROCKY**

Excellent for long transportation.

- Strong to Fusarium yellow and can be harvested in about 65days after transplanting.
- Head is approximately 1.5kg, semi flat shaped and very uniform.



F1 Hybrid **RYOZEKE**

Wide adaptability for different conditions.

- Fresh green head averages 1.5-2.0kg.
- Superb uniformity.
- Can be harvested in 70days after transplanting.
- Resists bursting with an ideal choice for long shipping.



F1 Hybrid **MSC-1049**

Excellent for field holding and transporting.

- Early semi flat cabbage around 65days after transplanting.
- Dark green color head.
- Excellent for field holding and transporting.





F1 Hybrid **JET**

Choice of semi flat cabbage.

- Ready for harvest in 60-65days after transplanting.
- The head is dark green and the leaves are thick.
- The head itself is slow crack, long field holding.
- Weight about 1.5-2.0kg.

Type	Variety	Maturity (Days after planting)	Head Weight (kg)	Head Color	Disease Tolerance	Heat Tolerance	Cold Tolerance	YR
Round	F1 Hybrid <b>BEAUTY</b>	55-60	1.0-1.5	Light Green	Medium	Medium	Medium	YR
	F1 Hybrid <b>MSC-1322</b>	60	1.2-1.5	Green	Medium	Strong	Medium	-
	F1 Hybrid <b>MSC-1313</b>	75-80	2.0-2.5	Green	Medium	Medium	Strong	-
Semi-flat	F1 Hybrid <b>SEIKAN</b>	60-65	1.5-2.0	Dark Green	Medium	Strong	Medium	YR
	F1 Hybrid <b>ROCKY</b>	65	1.5	Dark Green	Strong	Strong	Medium	YR
	F1 Hybrid <b>RYOZEKI</b>	70	1.5-2.0	Light Green	Strong	Medium	Medium	YR
	F1 Hybrid <b>MSC-1049</b>	65	1.5-2.0	Dark Green	Strong	Strong	Medium	YR
	F1 Hybrid <b>JET</b>	60-65	1.5-2.0	Dark Green	Strong	Strong	Medium	YR

**Broccoli** ~Brassica oleracea~

F1 Hybrid **SALINAS EARLY**

Early maturity broccoli.

- Early variety with wide adaptability to different climatic regions and sowing periods.
- Dark green color and weight approx 350g.
- Plant has a waxy surface and it is strong against black rot.
- Suitable for spring sowing, can be harvested in 60days after transplanting.







# Chinese Kale ~*Brassica alboglabra*~

F1 Hybrid

## MS-1339

Excellent heat tolerance new chinese kale.

- Leaf is deep green color and smooth, thick stem.
- Strong vigorous in high temperature season.
- It can be harvested in 50-55 days.



F1 Hybrid

## SEIHO

Beautiful, thick stems.

- White flower variety ready for harvest 55-60days after sowing.
- A vigorous plant with thick stems, high yield.
- Nodes are medium long, strong heat & cold tolerance, wide sowing season.
- The plant height is 40cm with a stem height of 35cm stem thickness is 2.0-2.5cm, weight is 150-200g.





F1 Hybrid

# RAKUHO

Stems are thick and glossy.

- White flower variety ready for harvest 50-55days after sowing.
- Stems are very dark, glossy green with less bloom.
- Strong vigorous upright plant.
- The plant height is 40cm with a stem height of 35cm stem thickness is 2.0-2.2cm, weight is 130-180g.



F1 Hybrid

# SUIHO

Fresh green, soft and delicious with wide stem.

- Vigorous plant can be harvested in 50-55days after sowing.
- Dark green, thick and small round leaves with little bloom.
- Tolerant to diseases, soft and delicious with wide stem.
- 1.7cm-2.0cm stem, 35cm height, 30cm long and 100-150g main stem.





## Chinese Kale



F1 Hybrid

# TOKUHO

Medium maturity variety that can be harvested in 55-60days.

- Strong vigorous semi-upright plant.
- Large, thick, and heavy leaves.
- Nodes are medium length, smooth and beautiful.
- The plant height is 40cm with a stem height of 35cm stem thickness is 2.0-2.5cm, weight is 150-200g.



F1 Hybrid

# RYOKUHO

Extra early maturity.

- Vigorous plant can be harvested in 45-50days after sowing.
- Upright and thick leaves of little bloom.
- Resistant to diseases, good shaped, soft and delicious with wide stem.
- 1.7cm-2.0cm stem, long internode, 40cm height, 35cm long and 100-150g main stem.

Type	Variety	Maturity (Days after planting)	Leaf Color	Plant Shape	Internodes	Bolting	Heat Tolerance
Leaf	F1 Hybrid <b>MS-1339</b>	50-55	Dark	Upright	Medium	Late	Strong
Stem	F1 Hybrid <b>SEIHO</b>	50-55	Dark	Semi-upright	Medium Long	Medium	Strong
Stem	F1 Hybrid <b>RAKUHO</b>	50-55	Dark	Upright	Medium	Medium Late	Medium
Stem	F1 Hybrid <b>SUIHO</b>	50-55	Dark	Semi-upright	Long	Medium	Strong
Stem	F1 Hybrid <b>TOKUHO</b>	55-60	Dark	Semi-upright	Medium	Medium	Strong
Stem	F1 Hybrid <b>RYOKUHO</b>	45-50	Dark	Semi-upright	Medium	Medium	Strong





# Pak choi ~*Brassica chinensis*~

F1 Hybrid

## MSW-1305

Brand new summer pak choi  
from MUSASHINO.

- Short petiole type pak choi with heat tolerance.
- Upright plant and good workability.
- Good shaped smooth leaf.



F1 Hybrid

## MSW-1246

Well balanced and beautiful  
apperance.

- Deep colored and glossy leaf, petiole.
- Good shape and volume.
- Slender petiole, volumed bottom shape.





## Pak choi

F1 Hybrid

### CR VIGOR

Introducing clubroot tolerance pak choi into the world.

- Regular size plant with heat tolerance.
- Vigorous plant, high yielding.
- Strong for clubroot.



F1 Hybrid

### VIGOR

Heat tolerant, suitable for cultivation in sub-tropical to tropical regions.

- Vigorous and upright plant.
- Dark green leaves with wide petiole.
- High yield under tropical condition.



F1 Hybrid

### SUMMER FESTIVAL

Strong tolerance to heat.

- Oblong leaves sit on top of a thick petioles.
- Early maturity and upright plant.
- Recommended for sub-tropical to tropical regions.



F1 Hybrid

## LUNAR QUEEN No.2

Excellent for winter – spring season.

- Great cold tolerance, late bolting.
- Dark green leaf with glossy petiole.
- Good uniformity for shape.



F1 Hybrid

## LUNAR QUEEN

Slow bolting for cool regions, suitable for autumn and winter planting.

- Thick and medium length petioles.
- Tender and excellent in taste.
- Upright plant and rich green leaves.



F1 Hybrid

## AUTUMN BREEZE

Many leaves and vigorous growth.

- Upright and vigorous plant.
- Bolting is slightly slower than SUMMER FESTIVAL.
- Abundant leaves are not declined in the volume after harvest and preparation.



## Pak choi

F1 Hybrid

### HARMONY

Beautiful petiole, highly tolerant to heat and rain.

- Glossy and beautifully shaped short petioles.
- Fast growing and has strong tolerance to heat, disease and rain.
- Suitable for year-round cultivation.



F1 Hybrid

### BULLET

Extra short petiole with excellent uniformity.

- Extra short and beautiful shape. petiole is wide and thick.
- Suitable for year round cultivation in the sub-tropical to tropical regions.
- Leaves are very dark green.

F1 Hybrid

### GLORY

Compact plant with dark green leaf and petiole.

- Early maturity with wide petiole, rather heavy.
- Petioles are short and very dark green.
- Glossy dark green plants.





## F1 Hybrid **HANAKAN**

Exellelent uniformity, early maturity.

- All year round sowing capability.
- Beautiful dark green oblong leaf sits on top of thick, sturdy petioles.
- Vigorous growth even in most adverse conditions.

## F1 Hybrid **KINKA**

Excellent uniformity, tolerant to heat and rain, beautiful shape.

- Early maturing variety with an excellently hard and short petioles.
- Resistant to heat and rain.
- Adaptable to wide cultivation types in tropical, sub tropical.

## F1 Hybrid **WASE KAKYO**

Dark leaf color, heat tolerant.

- Early Maturity with outstanding heat tolerance.
- Dark green and short petiole.
- Vigorous growth and good uniformity.

Variety	Leaf Color	Plant Shape	Petioles	Bolting	Heat Tolerance	Cold Tolerance
F1 Hybrid <b>MSW-1305</b>	Dark	Upright	Medium	Medium Early	Very Strong	Weak
F1 Hybrid <b>MSW-1246</b>	Dark	Upright	Short	Medium Early	Strong	Weak
F1 Hybrid <b>CR VIGOR</b>	Dark	Upright	Medium Long	Medium Early	Strong	Medium
F1 Hybrid <b>VIGOR</b>	Dark	Upright	Medium	Medium Early	Very Strong	Medium
F1 Hybrid <b>SUMMER FESTIVAL</b>	Dark	Upright	Medium	Early	Strong	Medium
F1 Hybrid <b>LUNAR QUEEN No.2</b>	Very Dark	Upright	Medium	Late	Medium	Very Strong
F1 Hybrid <b>LUNAR QUEEN</b>	Dark	Upright	Medium	Late	Medium	Very Strong
F1 Hybrid <b>AUTUMN BREEZE</b>	Dark	Upright	Short	Medium Early	Medium	Medium Strong
F1 Hybrid <b>HARMONY</b>	Dark	Upright	Short	Medium Early	Strong	Medium
F1 Hybrid <b>BULLET</b>	Very Dark	Upright	Extra Short	Medium	Medium Strong	Medium Strong
F1 Hybrid <b>GLORY</b>	Very Dark	Upright	Short	Early	Medium Strong	Medium
F1 Hybrid <b>HANAKAN</b>	Very Dark	Upright	Very Short	Early	Strong	Weak
F1 Hybrid <b>KINKA</b>	Dark	Upright	Very Short	Early	Strong	Weak
F1 Hybrid <b>WASE KAKYO</b>	Very Dark	Upright	Short	Early	Strong	Weak



# Pak choi ~Brassica chinensis~

F1 Hybrid

## LEGATO

White petiole pak choi.

- Pure white short broad petiole.
- Leaves are dark green and wave shaped.
- Can be harvested about 45 days after sowing.



F1 Hybrid

## ALTO

Dark & glossy dark green leaves.

- White, short, wide, good volume petiole.
- Can be harvested about 45 days after sowing.



Variety	Leaf Color	Plant Shape	Petioles	Bolting	Heat Tolerance	Cold Tolerance
F1 Hybrid <b>LEGATO</b>	Dark	Upright	Short	Early	Strong	Medium
F1 Hybrid <b>ALTO</b>	Dark	Upright	Short	Early	Medium	Medium



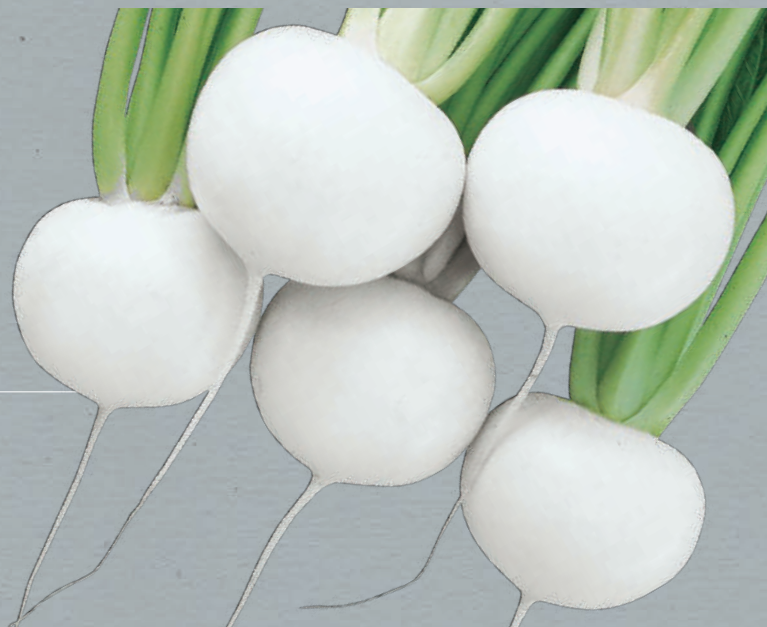
# Turnip ~Brassica rapa~

F1 Hybrid

## HAKUBA

Best for raw eating, all season variety.

- Amazingly great taste for fresh eating.
- Root has soft texture with high brix.
- Good uniformity.



F1 Hybrid

## DUKE

Early less deform summer turnip with excellent taste.

- Extra early maturing and good uniformity.
- Root has globe shape, white and glossy skin.
- Best performance in summer, remain well in greenhouse cultivation in all season.





F1 Hybrid

## MOMOMARU

Spring & autumn sowing pink color turnip.

- Pink colored root skin with white fresh inside.
- The size of root is like standard turnip but more vigorous plant.
- Plant height is up to 40cm.



F1 Hybrid

## AISHINKU No.3

Suitable for processing.

- For autumn and spring sowing.
- An early maturing type that grows to approximately 75cm long and 3cm in diameter.
- Extremely uniform in growth and shape, superb eating quality of fresh.



**F<sub>1</sub> Hybrid BARON**

Summer variety with strong tolerance for club root.

- Most suitable for summer cultivation with tolerance to club root and strong heat tolerance.
- Root is glossy white with a round globe shape and voluminous.
- Wide petioles are excellent and easy to harvest.

**F<sub>1</sub> Hybrid KOTOBUKI**

Autumn-spring variety with resistant for clubroot and white rust.

- An upright plant and rather strong vigorous.
- Easy for cultivate.
- Has clubroot and white rust resistance.

**F<sub>1</sub> Hybrid KAMOME**

Wide adaptability variety with heat and cold tolerance.

- Cracked root and deformation bulb hardly occurs under severe cold and hot temperature.
- Pure white and glossy bulb with good uniformity.

**F<sub>1</sub> Hybrid CR SHIRAYUKI**

Clubroot resistant with medium size root.

- Fresh is tender and juicy.
- Can be harvested from small to medium in size.
- Root is slow to pithiness and cracking.

**F<sub>1</sub> Hybrid KANPAI No.2**

Medium size turnip with excellent uniformity.

- Can be harvested at 9-14cm in diameter. Slow bolting, suitable for autumn to winter sowing.
- The root is a high-round shape, heavy and it has good uniformity.
- Firm and tender root is slow to pithiness.

**F<sub>1</sub> Hybrid HAKUHAI**

Autumn-winter sowing medium size turnip.

- A clean white globe shaped root is approximately 700 grams and 8-13cm long after 60 days.
- Uniform with white glossy skin and firm sweet fresh is excellent for pickles.
- Tolerant against pithiness.

Variety	Harvesting Season	Root Length(cm)	Root Color	Bolting	Disease Tolerance	Heat Tolerance	Cold Tolerance
F <sub>1</sub> Hybrid <b>HAKUBA</b>	Year-Round	10	White	Medium Early	-	Strong	Strong
F <sub>1</sub> Hybrid <b>DUKE</b>	Year-Round	10	White	Late	-	Medium	Medium
F <sub>1</sub> Hybrid <b>MOMOMARU</b>	Autumn, Winter, Spring	10	Pink	Medium Early	-	Weak	Medium
F <sub>1</sub> Hybrid <b>AISHINKU No.3</b>	Autumn, Winter, Spring	12	Red	Medium Early	-	Medium	Medium Strong
F <sub>1</sub> Hybrid <b>BARON</b>	Summer	10	White	Late	Club Root	Strong	Medium
F <sub>1</sub> Hybrid <b>KOTOBUKI</b>	Autumn, Winter, Spring	10	White	Late	White Rust-Club Root	Medium	Strong
F <sub>1</sub> Hybrid <b>KAMOME</b>	Autumn, Winter	10	White	Late	-	Medium	Strong
F <sub>1</sub> Hybrid <b>CR SHIRAYUKI</b>	Autumn, Winter, Spring	12	White	Late	Club Root	Medium	Medium Strong
F <sub>1</sub> Hybrid <b>KANPAI No.2</b>	Autumn, Winter, Spring	12	White	Medium	Club Root	Weak	Medium Strong
F <sub>1</sub> Hybrid <b>HAKUHAI</b>	Autumn, Winter, Spring	9-12	White	Medium	-	Weak	Medium Strong





# Choi Sim ~Brassica rapa campestris~



F1 Hybrid **MSX-1239**

New high yield and early maturity.

- Maturity in 28-32 days.
- Thick and smooth, glossy dark green stem.
- Round and short leaves make high yielding.
- Excellent eating quality.



F1 Hybrid **MS-1340**

Wide sowing window.

- Maturity in 28-32 days.
- Good performance in spring-autumn season.
- Dark green leaf and stem.



F1 Hybrid  
**MS-1341**

High yield, excellent heat tolerance.

- Strong vigorous remain under high temperature.
- Can be harvested in 35-40days.
- Plant is upright and easy for harvesting.
- Large leaves and high yield.



F1 Hybrid  
**MS-1342**

Strong heat tolerance.

- Maturity in 35-40 days.
- Excellent uniformity.
- Plant is upright and easy for harvesting.

Type	Variety	Maturity (Days after planting)	Leaf Color	Plant Shape	Bolting	Heat Tolerance	Cold Tolerance
Stem	F1 Hybrid <b>MSX-1239</b>	28-32	Dark	Upright	Early	Medium	Medium
Stem	F1 Hybrid <b>MS-1340</b>	28-32	Dark	Upright	Medium Early	Medium	Medium
Leaf	F1 Hybrid <b>MS-1341</b>	35-40	Medium	Upright	Late	Strong	Medium
Leaf	F1 Hybrid <b>MS-1342</b>	35-40	Medium	Upright	Late	Strong	Medium



# Komatsuna ~Brassica rapa~



F1 Hybrid

## KIRARI

Deep dark green and glossy leaf, high yield for summer season.

- Upright variety with very dark green and glossy leaf.
- Slow growing even under high temperature.
- Wide harvesting season with high yielding.



F1 Hybrid

## BIZEN

Great performance in winter season.

- Remain vigorous in winter season.
- Upright plant with dark green leaves, petiole.
- Leaf shape is oval and upright plant habit with early harvesting.



F1 Hybrid

## SHIZUKU

Thick and uniform petioles.

- Can be harvested in 25-30days in high temperature season and 40-60 days in cold period.
- Leaves are bright dark green and plant shape is beautiful.
- Plant is upright and thick petioles, easy to packaging after harvest.

Variety	Leaf Color	Plant Shape	Plant Growth	Heat Tolerance	Cold Tolerance
F1 Hybrid <b>KIRARI</b>	Dark	Upright	Vigorous	Strong	Medium
F1 Hybrid <b>BIZEN</b>	Medium Dark	Very Upright	Vigorous	Weak	Very Strong
F1 Hybrid <b>SHIZUKU</b>	Medium Dark	Upright	Vigorous	Medium	Medium



# Carrot ~Daucus carota~



F1 Hybrid

## BENIHIKARI

Early maturity dark orange Kuroda type carrot.

- Early maturing and late bolting F1 hybrid.
- Suitable for spring and summer sowing, Roots are 16-18cm length and 190-210g weight.
- Cylindrical shaped with deep lustrous orange skin and red core.



OP

## NEW KURODA

Attractive shape, outstanding uniformity.

- Suitable for summer sowing and winter harvest. Weights between 180-200g, 18-20cm long.
- Deep orange skin and red core.
- Can be harvested 100days after sowing.

Variety	Maturity	Root Length(cm)	Root Weight(g)	Root Color	Core Color	Heat Tolerance	Cold Tolerance
F1 Hybrid <b>BENIHIKARI</b>	Early	20~22	250	Deep Red	Red	Strong	Strong
OP <b>NEW KURODA</b>	Early	18~20	250	Deep Bright Red	Red	Strong	Strong









# Bunching Onion ~Allium fistulosum~



F1 Hybrid

## HIYAKU

Heat tolerance, vigorous, high yield variety.

- This variety has upright plant and good volume.
- Vigorous growth and high yield type, easy for cultivation.
- Good uniformity for seedling with less missing plants.



F1 Hybrid

## SOUTEN

Tolerant to both of heat and cold conditions.

- Wide adaptability, easy to cultivate.
- High yeilding, thick stem.
- Strong for leaf snapping by short leaves.



F1 Hybrid

## SHOGUN

Heat & cold tolerance with wide range of sowing windows.

- Plant is upright, firm neck.
- Good uniformity.
- Leaf is dark green, less leaf snapping.



F1 Hybrid

## HANABI

Fast growing, good uniformity.

- Excellent heat tolerance, upright plant and vigorous, high yield.
- Leaves are dark green with a thick leaf sheath.
- Easy to harvest.



## Bunching Onion

F1 Hybrid

### YAMATO

Hard firmed neck, long field holding ability.

- Upright plant with mid-vigorous.
- Dark green leaf, strong for cracking. Wide sowing windows.
- Good heat tolerance, mid-late bolting.



F1 Hybrid

### SEIHA

Fast growing, heat tolerance variety.

- Has excellent heat tolerance and plants are remain healthy under high temperature.
- Plant is upright with dark green leaf.
- Good shape and firm neck, early maturity.



F1 Hybrid

### HIDEO

Late bolting variety suitable for winter-spring cultivation.

- Excellent cold tolerance , wide adaptability.
- The leaves are dark green and not easy to break and the neck is uniform and firm.
- Good eating quality.



F1 Hybrid

### TENKO IPPON

Award winning F1 hybrid.

- Excellent tolerance against heat and cold temperatures.
- Superb uniform shape and easy to grow. Strong against rust, Downy mildew and Alternaria leaf spot.
- Dark green leaves, upright plant.





OP

## YOSHIKURA

Single stem heat tolerant for summer-autumn harvesting.

- Neck is firm and uniform, easy to grow.
- Superior heat and disease tolerance.
- Eye catching white stem is shiny, tasty.



OP

## MOTOKURA

Typical variety of autumn and winter harvesting type resistant to cold.

- Leaves are upright and dark green.
- Hard firm neck makes plant shape beautiful upright.
- Strong and upright plant vigor makes it possible to plant in high density.



OP

## YOSHI

Tillering bunching onion with high yield.

- Late bolting.
- Easy planting variety.
- Good uniformity for seedling with less missing plants.



## Bunching Onion



OP

### ISAO

Late-bolting, good cold tolerance.

- Upright standing and medium tall plant habit.
- Numerous vigorous growing leaves.
- Wide adaptability.



OP

### HARUO

Late-bolting, tillering type bunching onion.

- Easy to grow and strong to diseases.
- Short leaf with long white stem.
- Highly marketable after harvest.

Variety	Tiller	Plant Shape	Heat Tolerance	Cold Tolerance	Bolting
F <sub>1</sub> Hybrid <b>HIYAKU</b>	None	Upright	Very Strong	Medium Strong	Medium
F <sub>1</sub> Hybrid <b>SOUTEN</b>	None	Upright	Strong	Medium Strong	Medium
F <sub>1</sub> Hybrid <b>SHOGUN</b>	None	Upright	Strong	Strong	Medium
F <sub>1</sub> Hybrid <b>HANABI</b>	None	Upright	Strong	Strong	Medium
F <sub>1</sub> Hybrid <b>YAMATO</b>	None	Upright	Strong	Very Strong	Late
F <sub>1</sub> Hybrid <b>SEIHA</b>	None	Upright	Very Strong	Strong	Medium
F <sub>1</sub> Hybrid <b>HIDEO</b>	None	Upright	Medium	Strong	Late
F <sub>1</sub> Hybrid <b>TENKO IPPON</b>	None	Upright	Strong	Strong	Medium
OP <b>YOSHIKURA</b>	Very Few	Upright	Strong	Medium	Medium
OP <b>MOTOKURA</b>	Very Few	Upright	Medium	Strong	Medium
OP <b>YOSHI</b>	Medium	Upright	Medium Strong	Strong	Very Late
OP <b>ISAO</b>	Very Few	Upright	Medium	Strong	Very Late
OP <b>HARUO</b>	Medium	Upright	Medium Strong	Strong	Very Late



# Bunching Onion ~Allium fistulosum~



F1 Hybrid

## WAKABA NEO

Extremely upright plant with very dark green color leaf.

- Amazingly useful variety, which has cold & heat tolerance it makes cultivate in all season possible.
- Leaf color is very dark green and few leaf top damage.
- Wide range of planting windows from early spring to late autumn.



## Bunching Onion



F1 Hybrid

# SAYURI

Year round adaptable variety with dark green leaves, easy to harvest.

- Excellent in leaf color, shape and quality.
- Leaf sheath and blade are dark green and glossy.
- The variety is extremely popular in the market with very few leaf damage, tip burn.



OP

# WAKABA

Easy to cultivate year-round with very good tolerance against heat and cold temperatures.

- Grows dark green leaves that are upright and straight.
- Leaves are thick, heavy, easy to harvest and high yielding.
- Easy planting variety.

Variety	Leaf Color	Yield	Bloom	Plant Shape	Cold Tolerance	Heat Tolerance
F1 Hybrid <b>WAKABA NEO</b>	Very Dark Green	Very Good	Medium	Upright	Strong	Strong
F1 Hybrid <b>SAYURI</b>	Dark Green	Very Good	Medium	Upright	Strong	Medium
OP <b>WAKABA</b>	Dark Green	Good	Medium	Upright	Medium	Strong



# Chinese Leek ~Allium tuberosum~



OP

## MIRACLE GREEN BELT

Deep green with wide leaf.

- Short dormancy suitable for year round production.
- Vigorous growth even at low temperatures.
- Wide and thick leaves maintain long shelf life.
- Plant is vigorous and upright, long leaf sheath makes preparation easier after harvest.



OP

## GREEN BELT

Popular variety suitable for year round.

- Produces a heavy consistent yield every time.
- Vigorous growth and high yield type, easy for cultivation.



OP

## SUPER GREEN BELT

Tasty flavor! Suitable for year round.

- Excellent uniformity and consistent yield every harvest.
- Short dormancy characteristic suitable for year round cultivation.



OP

## WONDER GREEN BELT

Vigorous growth even in low temperature regions.

- Medium green leaves have good width between 1.3-1.5 cm wide for first harvest.
- Recommend for green house planting in winter periods.

Variety	Leaf Width	Leaf Sheath Length	Leaf Color	Plant Shape	Tiller	Dormancy
OP MIRACLE GREEN BELT	Wide	Rather Long	Dark Green	Upright	Few	Almost None
OP GREEN BELT	Medium	Short	Medium Dark	Semi-Upright	Many	None
OP SUPER GREEN BELT	Rather Wide	Short	Dark Green	Semi-Upright	Many	Almost None
OP WONDER GREEN BELT	Very Wide	Long	Medium Dark	Upright	Few	Almost None





# Tomato ~*Lycopersicon esculentum*~



F1 Hybrid

## MST-1237

Multi diseases resistant, high quality.

- Mid-strong plant vigor, short internode.
- Remain good fruits coloring under winter cultivation.
- Round shape fruits, around 220g, high yield.



F1 Hybrid

## MS-1328

Delicious taste with multi diseases resitant.

- Beautiful cluster fruit setting.  
(Recommend pick excessive flowers in case of stress by high temperature.)
- Less abnormal fruits cracking and stem.
- Mid-strong plant vigor.



F1 Hybrid

## STAR RUBY

Superior eating quality and high yielding.

- Beautiful cluster fruit setting.  
(Recommend pick excessive flowers in case of stress by high temperature.)
- Average weight 17g per fruit, mainly yield M/L size fruit.
- Abnormal stem and fruit cracking hardly appear.

Type	Variety	Plant Vigor			Plant	Fruit			Brix(%)	Disease Resistance								
		Beginning	Late	Internode	Maturity	Shape	Weight(g)	Color	Av.	TSWV	ToMV	TYLCV	Ff	Fol	SL	Vd/Va	Mi	
Interminate	F1 Hybrid MS-1237	Mid-Strong	Medium	Short	Mid-Early	High-Round	240	Pink	6		<div>○ Tm-2a</div>	<div>○ Ty-3a</div>	<div>○ Cf9</div>	<div>○ I-2</div>	<div>○</div>	<div>○</div>	<div>○</div>	
Cherry	F1 Hybrid MS-1328	Medium	Medium	Medium	Early	Round	16-18	Red	8.7	<div>○</div>	<div>○ Tm-2a</div>	<div>○ Ty-3a</div>	<div>○ Cf9</div>	<div>○ I-2</div>	<div>○</div>	<div>○</div>	<div>○</div>	
Cherry	F1 Hybrid STAR RUBY	Medium	Medium	Medium	Early	Round	16-18	Red	7		<div>○ Tm-2a</div>		<div>○ Cf9</div>	<div>○ I-2</div>			<div>○</div>	

# Squash ~Cucurbita spp.~



F1 Hybrid **ANGIE**

Powdery flesh and good taste with high yield.

- Strong vigorous with early maturity.
- Flesh color is deep and wide edible part, high brix.
- Stable fruit setting brings higher yield.



F1 Hybrid **ROGIE**

Amazing storability, stable fruit setting.

- Black green color fruit skin and sticky fresh.
- High yield and stable fruit setting.
- Maturing about 50 days after flowering.

Variety	Maturity(Days after planting)	Plant Growth	Fruit Shape	Skin Color	Weight(kg)
F1 Hybrid <b>ANGIE</b>	45-50	Rather-Strong	Semi-Flat	Dark Green	2.5
F1 Hybrid <b>ROGIE</b>	50	Rather-Strong	Semi-Globe	Very Dark Green	2.3

# Okra ~Hibiscus esculentus~

OP

**TOKYO GOKAKU**

Dark green pods.

- Medium dwarf plant that yields medium dark green and five ridged pods.
- The pods are smooth, straight and Anthocyan resistant.
- Superb quality pods have good eating quality.





# Iceplant ~*Mesembryanthemum crystallinum*~



## OP PUCHISARA

New vegetable with pop texture.

- Functional vegetables which contains mineral and many nutrition, it controls neutral fat and hyperglycemia.
- Contains minerals with characteristic taste.
- Good appearance like splashed precious stones.

# Chrysanthemum ~*Chrysanthemum coronarium*~



## OP OEDO

High yield, excellent flavor and popular choice.

- Fine leaf type suitable for open-field planting.
- Nodes are short and with many side shoots.
- Large consistent yield every harvest.



## OP KOMI

Long stem, fast growing and easy to cultivate.

- Leaves are small with fine notches.
- Stem grows straightly with bright green leaves in the top like palm tree.
- Can be harvested in 30-50 days after sowing.
- Suitable for salad with excellent touch and taste.

# Tropical Chinese Cabbage ~*Brassica rapa campestris*~



## F1 Hybrid OTEGORO

A new vegetable available for year round cultivation.

- Fast growing F1 Hybrid and easy to cultivate with firm leaves.
- Can be harvested between 30 and 60days after sowing.
- Good taste with soft flesh.

# Radish ~Raphanus sativus~

## OP HAYO

Leaf radish, thick tender flesh.

- Good uniform shape, both heat & cold tolerance suitable for all year cultivation.
- Thick leaf is dark green colored with very few surface hairs and tender flesh.
- Delicious when boiled or stir-fried.



## OP AKABEE

A gorgeous round shaped dark red radish.

- Superb quality and the marked value is high.
- Excellent uniformity in shape, size and growth rate, slow to pithiness.
- Easy to product to harvest in all season.



# Edamame Soybean ~Glycine max~

## OP NISHIKI

High quality, medium late maturity.

- Ripens in 100-110 days the beautiful pods are in bright green color.
- The plant is 65-70cm tall, and it is a high yielding variety putting out 5-6 side shoots with very large pods.
- Excellent bean flavor.



## OP AZUMA

Large and dark green pods.

- Great podding and high ratio of 3 beans in pods.
- Strong root spread, it makes plant vigorous.
- Good disease tolerance.
- Excellent flavor.
- Ripens in 85days.



# Pepper ~Capsicum annuum~



## OP SHISHITO

Outstanding uniformity, high yield.

- Vigorous, strong roots and branches, intended for long term cultivation.
- Even in heat of the summer season, the percentage of producing is high.
- Has excellent low temperature growth and fruit settings.



# General terms and conditions for seeds sale

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## Article 1-Use

- 1.1 The Seller sells seeds to the Buyer for horticulture or production of crop use only.
- 1.2 The Buyer or Grower may not use the seeds for multiplication or reproduction.
- 1.3 The Seller does not give any warranty and does not assume any responsibility for the multiplication of seeds by the Buyer or Grower.

## Article 2-Responsibility for Delivery

- 2.1 All deliveries are subject to usual crop and processing results. In the event that the Seller makes a justified appeal to this reservation, the Seller is not obliged to deliver but will endeavor to deliver the reserved quantities or comparable alternative(s). In such case, the Buyer is not entitled to any compensation whatever.

## Article 3-Delivery

- 3.1 Without advance notice, the Seller will ship products to the Buyer in a manner that the Seller considers most appropriate. After shipment from the Seller's warehouse, the Seller cannot be liable for any delay, damage, shortage or loss in transit.

## Article 4-Time of Delivery

- 4.1 Since delivery of ordered seeds to the Buyer is dependent upon prior safe and timely delivery of crop produce to the Seller, the Seller cannot provide any warranty to exact delivery date.
- 4.2 Even when delivery date(s) have been expressly agreed in writing between the parties, the Seller reserves the right to cancel any order or to postpone delivery.

## Article 5-Payment

- 5.1 Ownership of all products remains with the Seller until full payment is received and cleared through the Seller's bank.
- 5.2 When payment is not made within the agreed time, the Seller is entitled to compound interest on the outstanding amount at the rate of 1.5% per month.

## Article 6-Payment Ability

- 6.1 It is a precondition of shipment that the Buyer has the ability to pay for the shipped products. If the Seller is informed that the Buyer has difficulty in making such payment through a bank, trust company or any other source then the Seller may demand to keep any deposit/security and/or may cancel the shipment partially or completely.

## Article 7-Complaint Terms

- 7.1 The Buyer shall be deemed to have examined the products upon delivery or within a short time thereafter to determine completeness of quantity and quality. It is a condition of sale that complaints are made in writing and as soon as possible after receipt.

- 7.2 The Buyer is obliged to report any obvious defect or damage of seeds quality in writing to the Seller within five calendar days of receipt.
- 7.3 In case of complaint about seeds germination or purity, the Buyer shall make any such complaint in writing to the Seller with thirty calendar days of receipt.
- 7.4 The Seller will only accept a complaint if it can be proved that the problem is the result of seeds supplied by the Seller and that the seeds were planted in appropriate soil and in suitable growing conditions.

## Article 8-Description of Goods

- 8.1 Descriptions, pictures and all information about all varieties are based on those seeds being planted and grown in suitable growing conditions. The Seller does not guarantee that such seeds will grow exactly as described or that the same results will be achieved under different growing conditions. Different geographic and weather environments will affect growing times.
- 8.2 Sowing and harvest times are indicated according to Japanese standards. These times will vary according to different climate and/or growing conditions .

## Article 9-Resistance to Disease

- 9.1 Different varieties of seeds have different resistance to disease. Our descriptions are based on Japanese growing conditions and types of germ common to Japan.
- 9.2 The Seller cannot guarantee that our varieties will have the same resistance to disease in different growing conditions. Such disease can be transmitted by wind, insect, animal and/or human means. Occasionally, the soil itself may contain disease. All varieties have the potential to contract disease and the Seller takes no responsibility for the direct or indirect result of such disease.

## Article 10-Limitation of Liability

- 10.1 All seeds sold by the Seller have been carefully selected, dried and sized according to ISF international standards.
- 10.2 Germination and purity have been tested in the Seller's laboratories before shipment but the Seller cannot guarantee seeds adaptability in Buyer's conditions.
- 10.3 No consideration will be given to complaints that are not made within the guidelines described in above Article 7-Complaint Terms.
- 10.4 Regardless of direct or indirect fault, the Seller's liability will not exceed the purchase price of the seeds.

The Musashino Seed Co., Ltd.  
Tokyo, JAPAN



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From Ikebukuro in Tokyo to the World.

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