



Kiwi Colors

Dianthus barbatus

Technical Guide

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KIWI

COLORS

BARBATUS_COLLECTION

CREATED SPECIALLY FOR YOU

#KIWILOVERS

Dianthus barbatus is a perennial plant. It is a lovely variety of the *Dianthus* species. Having stems of 70 to 90 cm high, with a 10 to 13 cm head flower diameter, in very intense colors; red, pink, white and also bicolor. It has a production cycle of 10 to 12 weeks (under tropical conditions). It can vary according to weather conditions, and sowing latitude. It grows better in deep, organically rich and well drained soils; the hydroponic alternative is a very viable one.

Production

Planting density: 20 to 24 plants per square meter. Rich well drained, with good aeration, not much humidity, and a PH between 5.8 and 6.5 organic soils are required.

Hydroponic farming is also possible as long as there is an appropriate use and quality of the substrate used, and a well management.

It is in this first stage that the plant presents a higher demand on nitrogen, thus, it is recommended to do applications of calcium nitrate CN (NO₃) 2 per 200 ppm. The use of a net in 2 to 3 levels is recommended to guide the stems along the growth of the plant. Between week 6-7 or/and after reaching a height of 10 cm or 8 pairs of leaves well developed, the pinch should be done on the third internode or 3 pairs of leaves removing the apical growth meristem.

Once the plant has formed body; stems begin to come out. To obtain better results and better quality; it is important to make a selection leaving 5 to 7 (depending on the quality and market) stems in the plant, it is this moment when the plant requires more and better light exposure, this to assure good stem development and height.

The cycle of *Dianthus Barbatus* is between 10 to 12 weeks (tropical conditions) according to weather conditions in the area where it is being grown.

In the north hemisphere the cycle could change according to each season of the year; basically 8 weeks faster than carnations.



Mother plants and harvests of cuttings of the Dianthus Barbatus



Rooting cuttings 15 -18 days



Fertilization

The *Dianthus Barbatius* specie presents an extremely high demand of nitrogen in the first fenologic stage; nevertheless an excess of nitrogen means more sensibility to sicknesses and an increase of shoots. Nitrogen applications should be done twice per week at a dosage of 180 to 220ppm based on nitrates.

Phosphorus is also important at the first stages of growth, it potentiates the growth of the stem and roots, ammonium phosphate is also recommended to add N (18-46-0)

Potassium to enhance the aspect of the Dianthus and to increase the vigor of the plant, (enzyme activator) at a dosage of 22 ppm. The essential boron for the normal growth of the plant, promotes appropriate cell division, cell elongation, cellular wall strength, pollination and flowering. The frequency of application should be watched for, due to its very residual element. Dosage 1.5-2.0 ppm

Macronutrients

Grown plants:

apply fertilizer based on calcium at 100 ppm, once or twice per week. *Dianthus Barbatius* plants require an adequate amount of calcium in its fertilization program.

Plants which have just formed their roots:

apply in average 200 ppm of K, it should be applied through irrigation. A good level of potassium should enhance the aspect and vigor of the plant.

Micronutrients

Most required micronutrients by *Dianthus Barbatius* are: **iron, zinc, copper, magnesium, molybdenum, and boron**, in case of need, they should be applied via leaf, taking advantage of any phytosanitary at approximately 80 ppm.



Distribution planting



Cultural Recommendation

Preventive programs such as:

Fusarium (*Fusarium oxysporum* F. sp. *Dianthi*)

Produces important damage that goes up from the bottom to the top, it is usually located close to the stem base. At the beginning roots remain intact, but later on they rotten, causing the neck to break as the plant is removed, leaving part of the roots in the soil. It is controlled with irrigation, by watering the plant base extremely well, with fungicide solved or sprayed.

Miners (*psedonapomyza dianthicola*)

its larvae form leaf mines in the leaves, producing weakness and commercial depreciation of the carnations. They can also be controlled by applying different systematic pesticides.

Trips (*Frankliniella occidentalis*)

because of tiny size, they enter the flower buds easily, they feed (from petals and pollen) triggering discolorations in the edges of the petals. They can be controlled by applying different systematic pesticides.

"The information contained in this document of the crop provides general guidelines crop without a prescription, so if recommends make adjustments necessary according to climatic conditions, characteristics and practices of each farm."

Production cycle





SALES contact.

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RESEARCH AND TRIAL LOCATIONS.



**NORTH AMERICA, CANADA, AFRICA,
OCEANIA, MIDDLE EAST, INDIA**
FELIPE GOMEZ
F.GOMEZ@SELECTA-ONE.COM
MOBILE: +57 318 261 5993

**EUROPE, KOREA, IRÁN, MALASIA AND
VIETNAM.**
RICHARD BUIS
R.BUIS@SELECTA-ONE.COM
MOBILE: +34 609 336 918

JAPAN, TAIWAN AREA
SHINYA OGATA 小縣 信也
S.OGATA@SELECTA-ONE.COM
MOBILE: +81 90 6068 9573

MAINLAND CHINA
TIANLI ZHANG 张天立
T.ZHANG@SELECTA-ONE.COM
MOBILE: +86 18106556926

**MEXICO, CENTRAL AND
SOUTH AMERICA**
OSCAR CUARTAS
O.CUARTAS@SELECTA-ONE.COM
MOBILE: +57 317 431 6313

PRODUCT MANAGER
ANDRÉ LEK
A.LEK@SELECTA-ONE.COM
MOBILE: +34 639 814 326

GENERAL MANAGER
JORDI CABALLERIA
J.CABALLERIA@SELECTA-ONE.COM
MOBILE: +34 639 393 403

SELECTA COLOMBIA S.A.S
CARRERA 21 # 100-20 OF 403
BOGOTÁ DC COLOMBIA
PHONE: +57 317 431 6313

SELECTA JAPAN INC.
RM#5, 3-27 TAKIKO-DORI, SHOWA-KU,
NAGOYA, AICHI 466-0055 JAPAN
TEL: +81 (0)50-8882-9145
FAX: +81 (0)50-3737-6925

セレクトアジャパン株式会社
〒466-0055名古屋市昭和区滝子通
3-27番 RM#5
TEL: 090-6068-9573
FAX: 050-3737-6925

SELECTA CUT FLOWERS S.A.U.
AV BENIAMINO FARINA 135 1ER PIS
MERCAT DE FLOR I PLANTA
ORNAMENTAL DE CATALUNYA
08340 VILASSAR DE MAR
BARCELONA - SPAIN

PHONE: +34 93 750 6656
FAX: +34 93 750 6576
E-MAIL: CUTFLOWERS@SELECTA-ONE.COM



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@SELECTA_CUTFLOWERS

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