

Biosafety Clearing-House (BCH)

ORGANISM (ORGA)

BCH-ORGA-SCBD-4954-7

LAST UPDATED: 26 FEB 2020

Organism information

Scientific name

Dianthus caryophyllus

Taxonomic Classification

Kingdom Plantae
Phylum Magnoliophyta
Class Magnoliopsida
Order Caryophyllales
Family Caryophyllaceae
Genus Dianthus
Species *Dianthus caryophyllus*

Common name(s)

Carnation

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DIACA

EN

Type of organism

Crops

Domestication

Domesticated

Characteristics related to biosafety

Centre(s) of genetic diversity

It is probably native to the Mediterranean region but its exact range is unknown due to extensive cultivation for the last 2,000 years.

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Habitat range

Many *Dianthus* species occur as common wildflowers. There has never been any evidence of hybridization between carnation and these species, nor after decades of cultivation have carnations been found in the wild. Carnation has no weedy characteristics and is not closely related to known weeds.

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Common use(s)

Ornamental

Additional Information

Dianthus caryophyllus or carnation does not display hazardous or weedy characteristics and is used in the floriculture industry for cut flowers. Modern cultivars are maintained by vegetative propagation.

The biology of carnation is such that there are no reasonable means for the genetically modified plants to escape from cultivation and become established as populations in the wild, or for gene dispersal from the genetically modified carnation to occur. The commercial standard carnation varieties are generally male sterile and rarely produce anthers; and if they do, little pollen is produced and this can only be transferred by insects. In commercial carnation production, outcrossing is unlikely as flowers are cut before opening. Should flowers open, only certain insects are easily able to access nectaries in flowers and there are very few opportunities for this to occur during transit and sale. Furthermore, carnations plants require 6 weeks for seed development and cut carnation flowers last only 3-4 weeks, which is not enough time for seed set.

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Other relevant website addresses and/or attached documents

? [Biology of Carnation - v2.1 February 2020.pdf](#) (*English*)

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Further Information

Questions about the Cartagena Protocol on Biosafety or the operation of the Biosafety Clearing-House may be directed to the Secretariat of the Convention on Biological Diversity.

**Secretariat of the Convention
on Biological Diversity**

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