

New Crop Report

Dianthus repens

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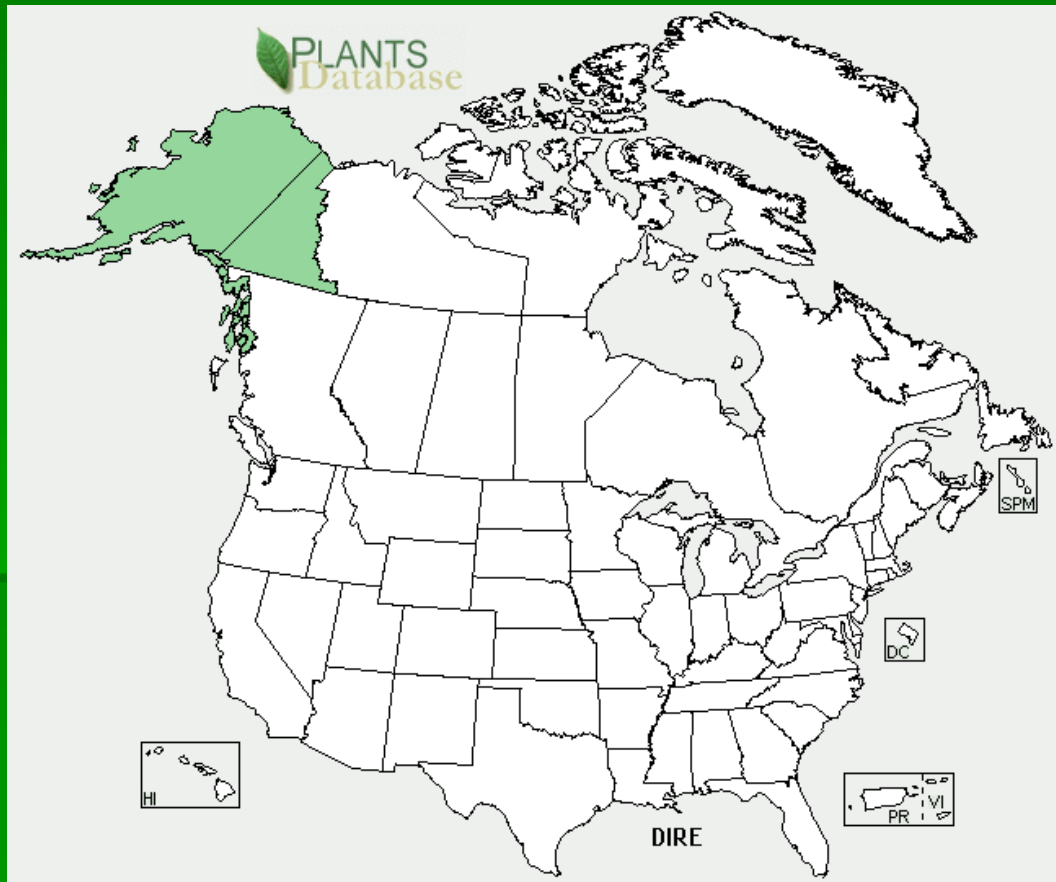
Taxonomy

- Scientific name: *Dianthus repens*
- Family: Caryophyllaceae
- Synonyms: None
- Common names: Northern Pink, Boreal Carnation

Geographic Distribution

- Continents: Asia, Europe, North America
- Countries: Siberia, Soviet Far East, China, East Europe (Russia), Canada (Yukon Territory), United States (Alaska)
- Latitudinal Ranges: 70°-60° N
- Altitude: 10-1400 m
- Tendency to naturalize or become invasive: Unknown

North American Geographic Distribution



General Climatic Conditions

- An arctic-alpine species which occupies cold, steppe habitats in temperate regions



Native Habitat

- Grow in rock outcrops, meadows at the forest edge, mountain slopes, riverbanks and steppes.

Taxonomic Description

- Growth Habit: Forb/Herb
- Root System: Fibrous
- Leaves: sheath 1-2mm, 1-2 times as long as stem diameter, blade lance-linear to oblong or linear, 1-4.5 cm, green, margins glabrous
- Flower: calx, 10-14 mm; glabrous, lobes triangular, 2-4 mm; petals pink to pink-purple

Taxonomic Description

- Season of Bloom: Mid- Summer
- Uses: Used by local Chinese for medicinal purposes, ornamental

Varieties/Cultivars on the Market

- Dianthus has been referenced back to the 16th century
- Dianthus alpinus
 - Introduced in 1759
 - From the Austrian Alps
 - Has been bred for numerous varieties
 - 'Joan's Blood'



- **Dianthus barbatus**
 - Original Sweet William
 - One of the oldest species grown in Britain, 1573
 - From lower mountain meadows in Europe
 - ‘Heart Attack’





- **Dianthus chinensis**
 - From the hills and Mountains of East Asia
 - Introduced to Britain over 300 yrs. Ago and brought to America with the colonists
 - 'Raspberry Parfait'

- **Dianthus deltoides**
 - Inhabits Europe and Asia
 - Free-Flowering
 - 'Brilliancy'



Propagation

- Seed Primarily
- Seed Dormancy: None
- Germination Temps/Duration: 1-3 month germination as seed is wild and germinates un-uniformly at 16-18° C. Although my seeds all germinated within 2 weeks with a 95% germination rate in the mist house.

Product Specifications

- Crop Ideotype:
Small, compact plant
in full color.



Market Niche

- Target Sales Date: Spring/Fall
- Potential Holidays: None
- Programmability: Yes, once the production schedule has been fully worked out
- Other Crop Competition: Other varieties of Dianthus and rock garden species

Market Niche

- Story: “A native perennial to North America which is excellent for rock gardens.”
- Major Crop: No, too many others cultivars of Dianthus and rock garden plants on the market, but could be a nice alternative for those few who desire a nice native rock garden plant

Market Niche

- Crop Limitations/Problems: Little to no research has been done on this crop. Further testing would first have to be completed.
- Product Already Identifiable: Yes, consumers will recognize the flowers.
- How soon to be available: 5-10 yrs

Cultural Requirements

- Winter Hardiness: Zone 1-6
- Heat/Drought Tolerance: Dry to Normal conditions
- Temperature: 18° C
- Light Quality: Full Sun to Sun
- Soil: Clay, Sand, Well-drained
- pH: 4.5-6.5
- Plant Growth Regulators: None

Cultural Requirements

- Container Size: Start Seed in a 288 plug tray.
- Grow on in plug trays and transplant into 3-4" sized pots.
- Diseases Resistance/Susceptibility: Unknown
- Fungicides/Insecticides: Unknown

Production Schedule

- Seed to Germination: 2 Weeks
- Germination to Transplant: 4 to 6 wks
- Transplant to flower: 5 wks + ?

Needs Assessment

- *Dianthus repens* grew very slowly once germinated.
 - Appeared to “sit” for weeks
 - A faster growing plant from seed to flower would be more desirable.

Literature Cited

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