# Species Datasheet

**Datasheet No. G-007.004.004**
**(family.genus.species)**

**1.Taxon:**

Species: *Picea pungens* Engelm.
Subspecies:
Variety:
Cultivar:
Hybrid:

Image file

**2. Synonyms:***Abies commutata* var. *glauca* Chargueraud, *A. menziesii* Engelm., *A. menziesii* var. *parryana* Andre, *A. parlatorei* Dallim. &A.B.Jacks., *Picea commutata* Beissn., *P. menziesii* Engelm., *P. menziesii* var. *parryana* Andre, *P. parryana* (Andre) Sarg., *P. pungens* f. *argentea* (R.C.Rosenthal) Beissn., *P. pungens* f. *coerulea* Beissn., *P. pungens* var. *compacta* (Rehder) Rehder, *P. pungens* f. *compacta* Rehder, *P. pungens* var. *glauca* Regel, *P. pungens* f. *glauca* (Regel) Beissn., *P. pungens* f. *glauca-pendula* H.Kost. exBeissn., *P. pungens* var. *hunnewelliana* Hornibr., *P. pungens* f. *hunnewelliana* (Hornibr.) Rehder, *P. pungens* var. *kosteriana* A.Henry, *P. pungens* f. *kosteriana* (A.Henry) O.L.Lipa, *P. pungens* f. *pendens* Rehder, *P. pungens* var. *pendula* (Mouill.) Zederb.,*P. pungens* f. *perpendicularis* Schwer., *P. pungens* var. *viridis* Regel, *P. pungens* f. *viridis* (Regel) O.L.Lipa, *Pinus armata* Voss, *P. parryana* (Andre) Voss

**3.Systematic Position:**

**Christenhusz*et al.* (2011)**

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Pinales Gorozh.
- Family: Pinaceae Spreng.
- Genus:*Picea*A. Dietr.
- Species: *P. pungens*Engelm.

**Bentham and Hooker (1862)**
Kingdom: Plantae
Division:Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus: Abietineae Eichler
Genus: *Picea*A. Dietr.
Species: *P. pungens*Engelm.

**4.Distribution:**

**Global:** Native to United States

**India:**

**5.Indigenous/Exotic/Endemic;Cultivated/Wild:**

**6.Threat Status:**

**IUCN:** Least concern

**BSI:**

**7.Habit and Habitat:** Evergreen tree (23 m tall), *P. pungens* is a subalpine species occurring in the Rocky Mountains at elevations between 1,800 m and 3,300 m a.s.l., commonly along mountain streams or on moist, N-facing slopes. The soils are mountain lithosols and streambed gravels of various origin, usually poorly developed.

**8.Life Form:**Phanerophytes

**9.Economic Importance:**Widely planted as an ornamental

**10. Probable Progenitor of:**

**11.DNA**

| **C-value** | **Methodology** |
|---|---|
| 2C (40.03 pg) [15] | Feulgen microdensitometry[15] |
| 2C (36.30pg)[27] | Feulgen microdensitometry[27] |
| 2C (42.10pg) [26] | Flow cytometry[26] |

**12.Basic chromosome number(s):**x=12[5, 8, 15, 17, 18]

**13. Zygotic chromosome number(s):**2n=24[5, 15, 17, 18]

**14. Gametic chromosome number(s):**n=

**15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes):**

Image file

**16.Ploidy level:**Diploid[5, 15, 17,18]

Image file

**17.Agametoploidy:**

**18.Nature of polyploidy (auto, segmental, allo, autoallo):**

**19.Genomic formula:**

**20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):**

**21.Somatic chromosomes:**[5, 18]

**Karyotype** Median and submedian[5, 18]

**Chromosome size** Large[5, 18]

**NOR chromosome(s)** 12 [18]

**Degree of asymmetry** Symmetrical[5, 18]

Image file

**22. Banding pattern(s):**

Image file

**23.Physical mapping of chromosomes:**

**In situ hybridization**

Image file

**Fluorescent in situ hybridization:**45S rDNA, 5S rDNA, *Sau* 3A[18]

Image file

**24.Genomic in situ hybridization:**

Image file

**25. Linkage map:**

Image file

**26.Chromosome associations:**

**Female meiosis**

**Male meiosis**

Image file

**27.Chromosome distribution at anaphase I:**

**28. Genetic diversity:**

**Chromosomal level**

Image file

**DNA level**

**29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis; Pollen stainability;Translocationsetc.):**