Datasheet No. G-007.005.020 (family.genus.species)

#### 1.Taxon:

Species:*Pinus resinosa* Aiton Subspecies: Variety: Cultivar: Hybrid:

Image file

2. Synonyms: Pinus resinosa f. globosa Rehder, P. resinosa f. resinosa, P. rubra Michx.f.

# 3.Systematic Position:

- Christenhusz*et al.* (2011)
- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Pinales Gorozh.
- Family: Pinaceae Spreng.
- Genus: Pinus L.
- Species: *P.resinosa* Aiton

## Bentham and Hooker (1862)

Kingdom: Plantae Division:Phanerogamia Class: Gymnospermeae Ordo: Coniferae Tribus: Abietineae Eichler Genus: *Pinus*L. Species: *P. resinosa* Aiton

#### 4.Distribution:

Global:Recorded from eastern North America, from Newfoundland and West Virginia westward to Manitoba and Minnesota.

India:

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

## 6.Threat Status:

**IUCN:** Least concern

#### **BSI:**

**7.Habit and Habitat:** Evergreen Tree (20-35 m tall), *P. resinosa* is a species of pine occupying the northeastern mixed conifer-deciduous broad-leaved forest bordering on the boreal conifer forest at its northern limit. The species avoids non-acidic soils and only grows over limestone when there is a leached, acid top layer. It is largely a lowland pine growing at altitudes between 200 m and 450 m, but ascends to 1,300 m a.s.l. in the Appalachian Mountains.

#### 8.Life Form: Phanerophytes

#### 9.Economic Importance:Red Pine is an important timber tree, paper pulp

#### **10. Probable Progenitor of:**

11.DNA	
C-value	Methodology
2C (43.10 pg) <sup>68</sup>	Feulgen Microdensitometry <sup>68</sup>
2C (46.70 pg) <sup>63</sup>	Feulgen Microdensitometry <sup>63</sup>
2C (41.30 pg) <sup>1</sup>	Flow cytometry <sup>1</sup>
2C (47.60 pg) <sup>32</sup>	Flow cytometry <sup>32</sup>
2C (57.02 pg) <sup>20</sup>	Flow cytometry <sup>20</sup>

**12.Basic chromosome number(s):**x=12<sup>23, 35, 43, 44, 47, 59, 63</sup>

# **13. Zygotic chromosome number(s):**2n=24 <sup>23, 43, 44, 47, 59, 63</sup>

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

# 15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene

#### chromosomes/Neocentric chromosomes):

Image file

**16.Ploidy level:**Diploid <sup>23, 43, 44, 47, 59, 63</sup>

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: <sup>23, 44, 47, 59, 63</sup>
Karyotype Median and submedian<sup>23, 44, 47, 59, 63</sup>
Chromosome size Large<sup>23, 44, 47, 59, 63</sup>
NOR chromosome(s) 16<sup>47</sup>, 20<sup>59</sup>
Degree of asymmetry Symmetrical<sup>23, 44, 47, 59, 63</sup>
Image file

# 22. Banding pattern(s): C-bands <sup>44</sup>

Image file

#### 23.Physical mapping of chromosomes:

#### In situ hybridization

Image file

**Fluorescent in situ hybridization** pKF J660 probe of rice blast fungus, 18S-5.8S-26S rDNA<sup>59</sup>, 18S-5.8S-26S rDNA<sup>47</sup>

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.):