Crosses of Standard Daffodils with Species

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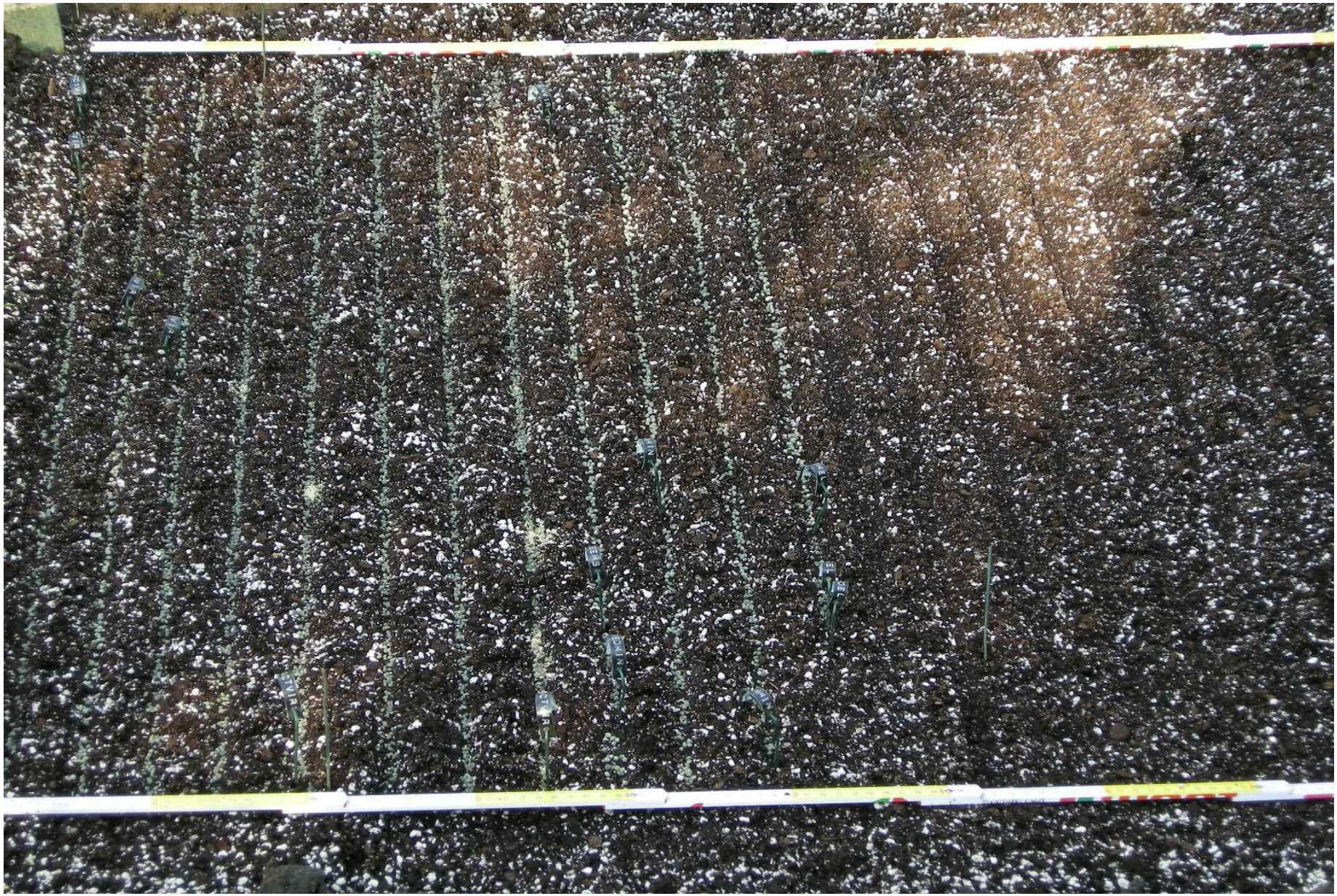
Seed capsules and seeds

Seed beds with heaters

New heater



Seed bed

Covered seed beds

1. year

2. year

3. year

4. year

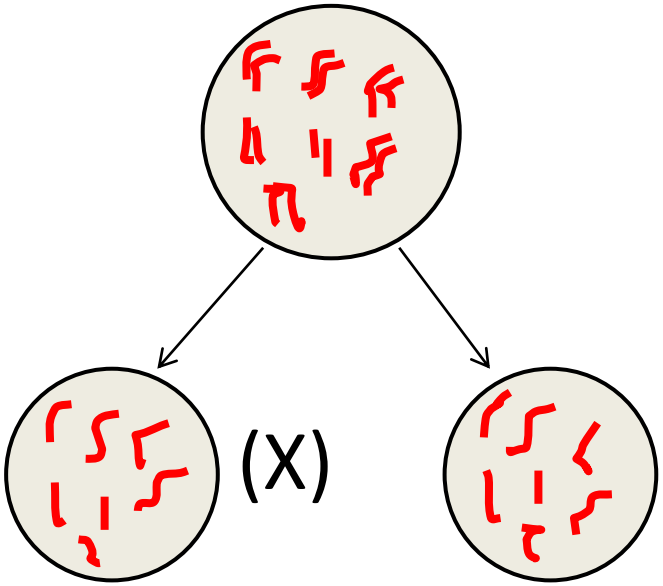
Bulb propagation by cutting

Why Crosses of Standard Daffodils with Species?

- Many species have no or a very low bulb increase
- In colder climates many species don‘t grow outdoors
- You can combine different traits of standard daffodils and species in a new manner
- Crosses of standard daffodils and species often show hybrid vigor
- If you cross fertile Jonquilla-, Triandrus- and Tazetta hybrids with different species you get triploids with three different chromosome sets. I think these types grow especially well

N. cordubensis

plant cell



(X)

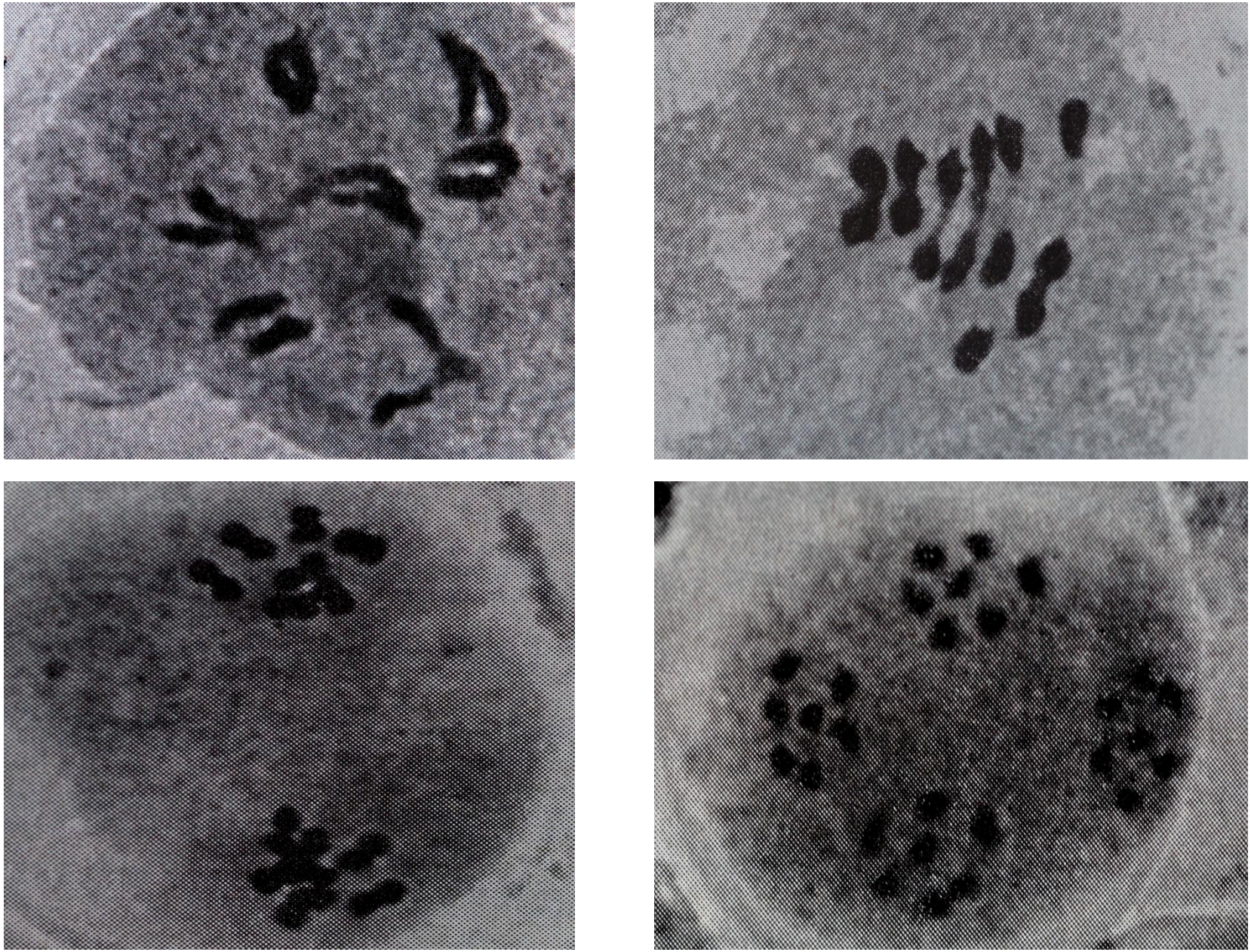
pollen or egg cell

2 chromosome sets (XX)

→ diploid

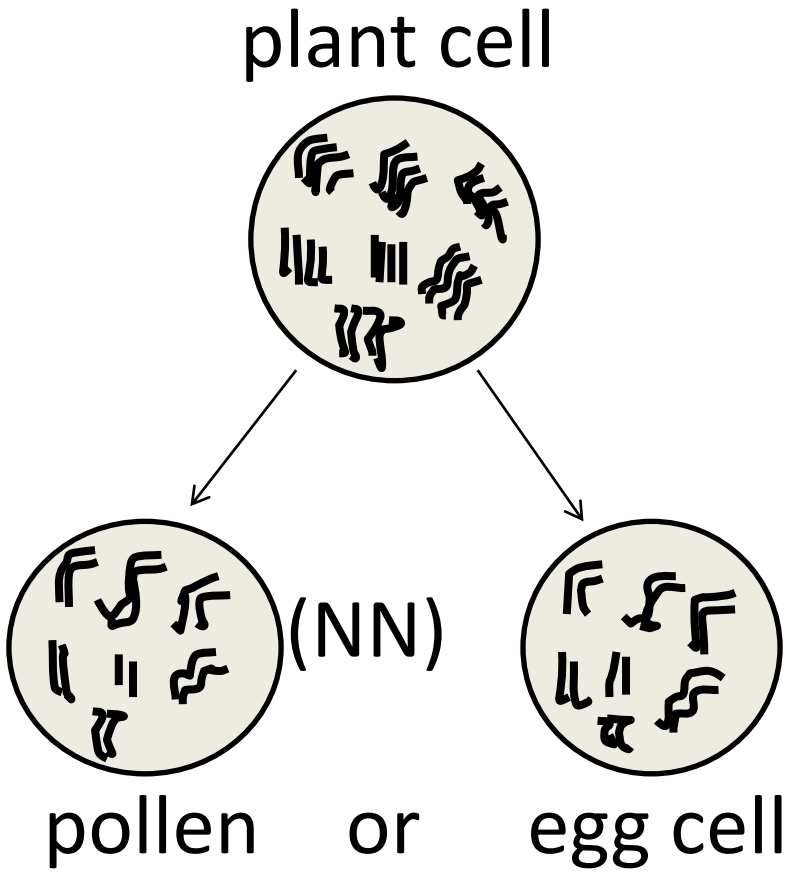
1 chromosome set (X)

→ Fertile diploid plant



Reduction division of a petunia hybrid

Altruist



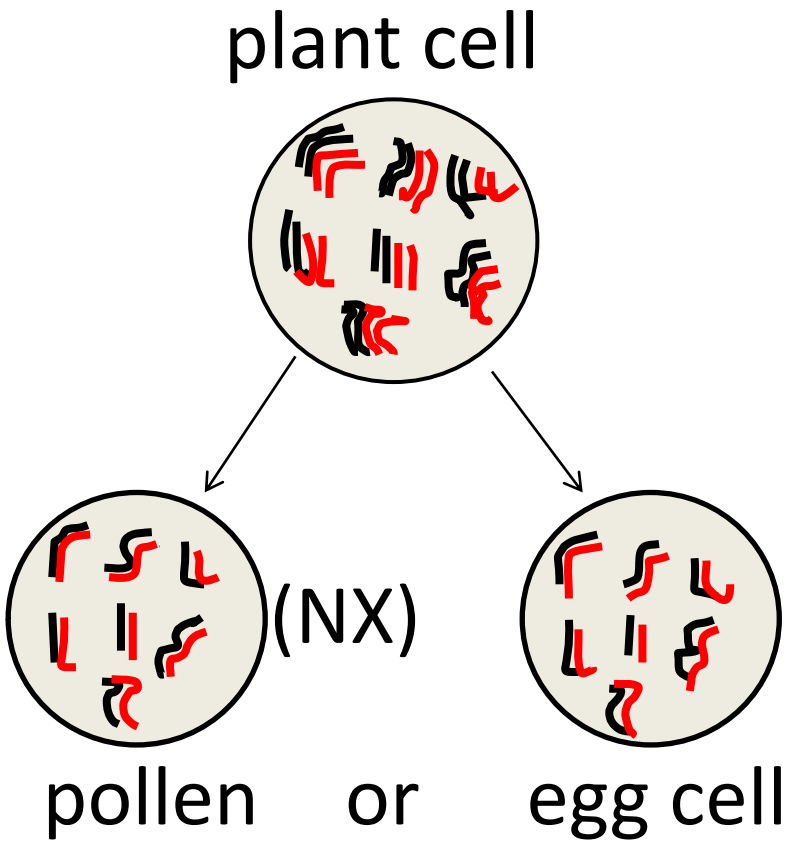
4 chromosome sets (NNNN)

→ tetraploid

2 chromosome sets (NN)

→ Fertile tetraploid plant

Hillstar



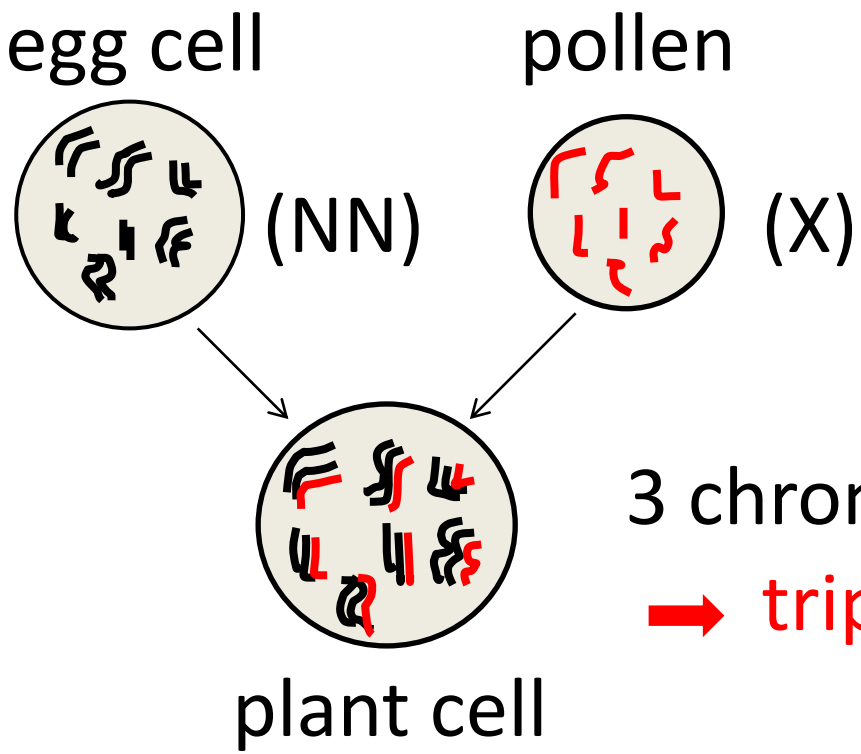
4 chromosome sets (NNXX)

→ tetraploid

2 chromosome sets (NX)

→ Fertile tetraploid plant

Altruist x N. cordubensis

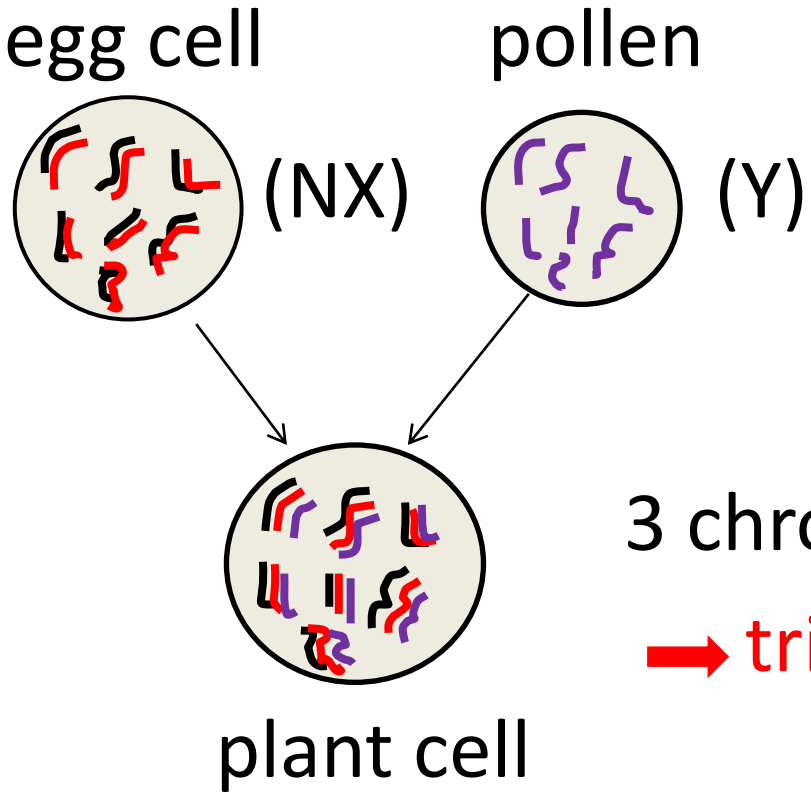


3 chromosome sets (NNX)

➡ triploid

➡ Infertile plant, but in some cases few potent NX- or NNX- pollen and/or egg cells

Hillstar x N. triandrus



3 chromosome sets (NXY)

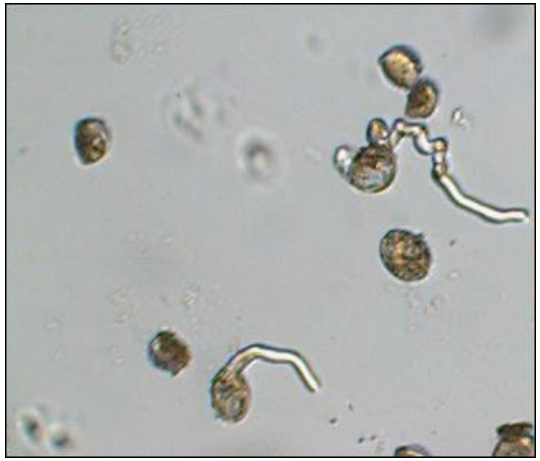
→ triploid

→ Infertile plant, but in very few cases NXY-pollen and/or egg cells

Actaea (NN-pollen)

N. Poeticus (N-pollen)

N. cordubensis (J-pollen)



Altruist x N. cordubensis (NJ-pollen)

N. cordubensis

Decoy x N. cordubensis

Truculent x N. cordubensis

Altruist x N. cordubensis

Trigonometry x N. cordubensis1

Menehay x N. cordubensis

Trigonometry x N. cordubensis2

Altruist x N. cordubensis

Decoy x N. cordubensis

Pinza x N. cordubensis

N. fernandesii

Altruist x N. fernandesii1

TS 126 x N. fernandesii

Altruist x N. fernandesii2

Altruist x N. fernandesii3

TS 35 x N. fernandesii

N. assoanus

TS 108 x N. assoanus1

Homecoming Princess x N. assoanus

TS 108 x N. assoanus2

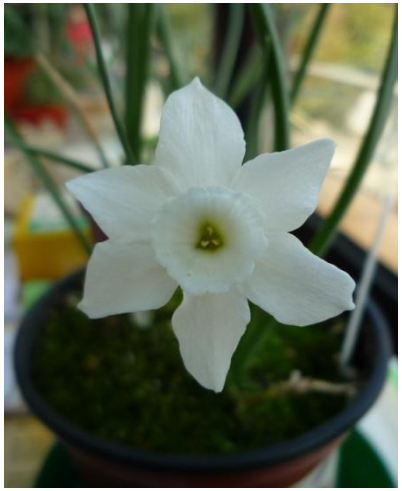
TS 124 x N. assoanus

Sidley x N. assoanus

N. calcicola

N. gaditanus

N. scaberulus



N. watieri

N. triandrus pallidulus

N. triandrus concolor

Falstaff x N. triandrus p.

Bilbo x N. triandrus p.

Wychavon x N. triandrus p.

Hillstar x N. triandrus p.

Selected seedling

Selected seedling of Hillstar x N.triandrus pallidulus in the field of Arno Kroon in Holland

Emerald Sea x
N. triandrus p.

N. bulbocodium (Sierra Madrona)

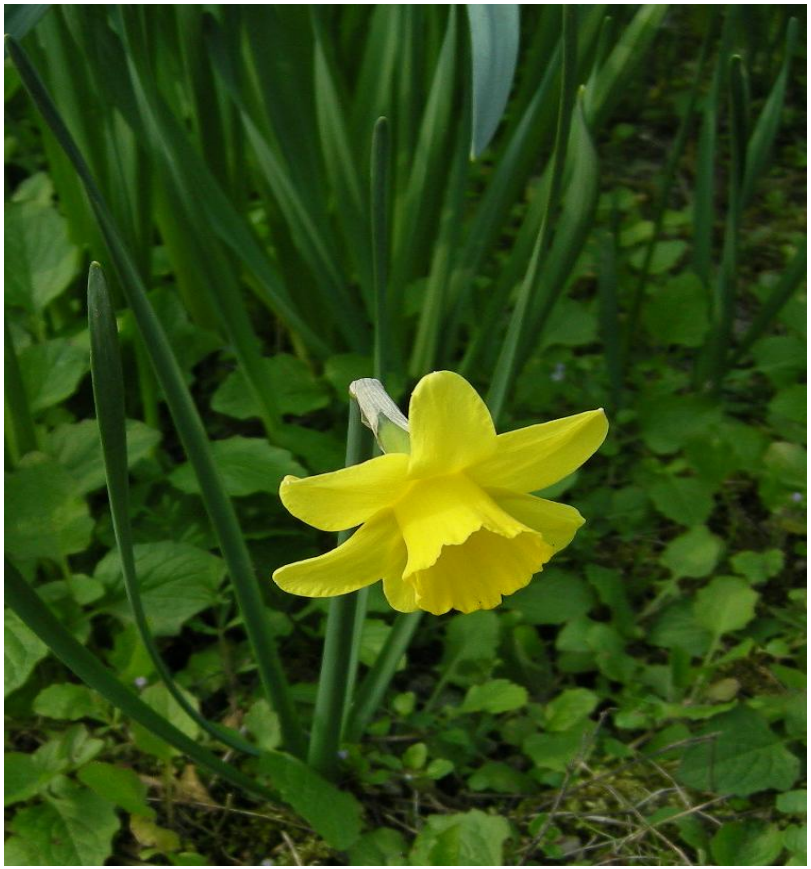
Kingscourt x N. bulbocodium

Hillstar x N. bulbocodium1

Hillstar x N. bulbocodium seedlings

Hillstar x N. bulbocodium2

N. hedraeanthus (St. Elena)



Honeybird x N. hedraeanthus

Hillstar x N. hedraeanthus1

Hillstar x N. hedraeanthus

Hillstar x N. hedraeanthus2

Hillstar x N. hedraeanthus2 in the field of Arno Kroon in Holland

N. cantabricus (Calatrava, Spain)

Broomhill x N. cantabricus1

Broomhill x N. cantabricus2

Ufo x N. cantabricus

Redhill x N. cantabricus

TS 126 x N. cantabricus

TS 411 x N. cantabricus

Hillstar x N. cantabricus1

Hillstar x N. cantabricus seedlings

Hillstar x N. cantabricus2

Silver Bells x N. cantabricus1

Silver Bells x N. cantabricus2

Emerald Sea x
N. cantabricus

N. cyclamineus (Caramuelis)

N. cyclamineus (Santiago)

Hillstar x N. cyclamineus

N. tazetta (Figueres, Spain)

Ufo x N. tazetta

Actaea x N. tazetta

Loch Coire x N. tazetta

N. elegans

N. dubius (Santa Eulalia)

Ufo x N. dubius seedlings

Hillstar x (TS 175 x N. dubius)

N. tortifolius (Turre, Spain)

Edna Earl x N. tortifolius

Verona x N. tortifolius

N. pannizianus (Ronda)

Pontresina x N. pannazianus

N. viridiflorus

Ballygowan x N. viridiflorus at January 30 in the field

Ballygowan x N. viridiflorus

Fragrant Rose x N. viridiflorus

TS 108 x N. viridiflorus

Reference Point x N. viridiflorus

N. miniatus

N. cavanillesii