Finola Developmental Morphology

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Updated February 2013

Some Factors Affecting FINOLA's Flowering Time

Factors	Decreases the time until flowering	Increases the time until flowering
• **Thermal energy**	hot, dry weather	-
• **Nitrogen level**	lower nitrogen	higher nitrogen
• **Soil condition**	poor, wet clay	rich, moist sand
• **Moisture**	drought	-

In general, stressful conditions for FINOLA will decrease the amount of time for flowering to begin and end. This also causes the rapid maturation of fewer seeds, which is noticed as low grain yields that typically have a poor germination rate.

Avoid condition that decrease the time until flowering!

Morphological stages of development for Finola, when sown between mid-May and early June near latitude 50°N. More time may be needed at higher latitudes.

- Emergence of seedlings 5-7 days after sowing
- First true leaves, day 7-10
- Second true leaves, day 10-12
- Third true leaves, day 12-15
- Forth-fifth true leaves, day 15-25
- Beginning of flowering, day 25-30
- Beginning of pollination, day 30-35
- Peak time of pollination, day 40-50
- Apparent seed formation by day 55
- End of pollination by 55-65 days
- Strong smell from females, beginning day 50-60
- 30-70% mature seed, day 70-80
- 60-80% mature seed, day 90-100
- Male flowers normally dead by day 100
- Harvest time, day 100-120 after sowing

Day 7-10 after sowing, showing first pair of true leaves (1st node)

Day 10-12 after sowing, 2nd node (2nd pair of true leaves)

Day 12-15, 3rd node (3rd pair of true leaves)

Day 15-25, 4-5th nodes, just before flowering

Day 25-30, the beginning of flowering; male (left) and female (right). There is a compact mass of flowers forming at the apex of the plants at this time.

Day 25-30, male flowers on node 4, just before pollination

Day 33-35, male flowers at node 4, releasing pollination

Day 45-55, peak release of pollen

Day 55, female flower, apparent green seed formation, nodes 4- 8

Day 55, about 25% seed maturity

Day 55-65, end of pollination

Day 90-100, about 60-80% seed maturity

Day 100, males dead, females continue seed maturation

Day 120 harvest time near 50°N, sooner at lower latitudes

Flocking migratory birds are strongly attracted to mature FINOLA seed

Harvesting the mature grain and fiber

Two bundles of fully grown hemp stalks. The one on the left is from a central European fiber variety, which is taller, matures later and does not flower or produce seed in Finland. The one on the right is Finola, which is shorter, matures earlier and produces seed in Finland.

Both varieties were planted in Finland at the same time and grown under the same conditions.