

How Do Flowers Know When to Bloom?



How do flowers know when to bloom? The secret is in their genes.

Flower petals breaking through the snow, an early hint of spring's arrival, hides a very complex genetic process behind its floral façade.

Flowers know when to bloom because of a gene named *Apetala1*. A lone master gene, *Apetala1* triggers the reproductive development of a plant, telling it when it's time to start blossoming. Yes, a single gene is all it takes to make a plant start producing flowers.

A plant blooming with flowers has an active *Apetala1*, while a plant carrying inactive *Apetala1* genes has very few flowers, if any, with leafy shoots growing in place of blossoms.