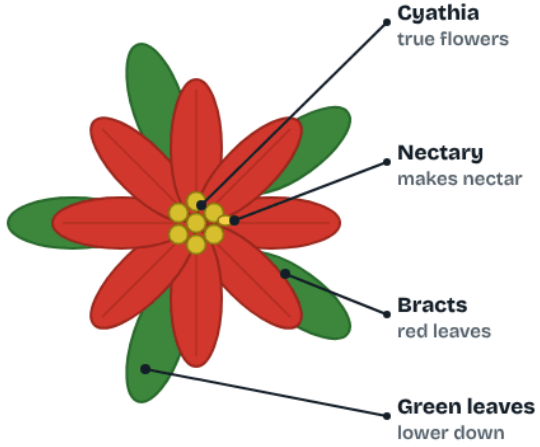
That is why

Why do poinsettias turn red?

Long nights switch on red top leaves (bracts) that point pollinators to the tiny real flowers.

A What you are looking at

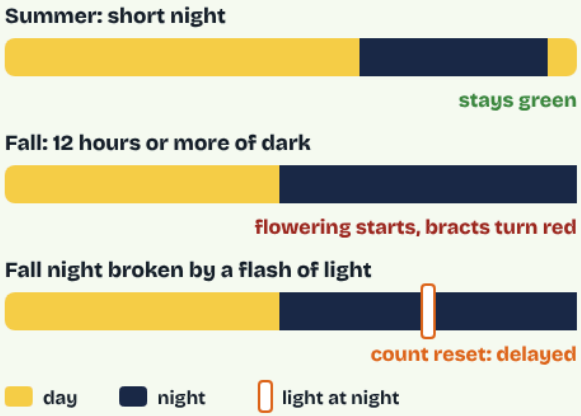


Native to Mexico and Central America

Not petals: a sign

The red bracts are leaves, not flowers. They signal pollinators, such as bees or birds, that the tiny flowers in the center are open for business.

B Counting the dark



Phytochrome: the night counter



At sundown, the phytochrome is Pfr. Each long night drifts it back to Pr, which releases the flowering signal. Far-red light (730 nm) undoes a flash. Cocklebur, another short-day plant: 8.5 h.

C From long nights to red

1 Nights lengthen
12 hours or more of darkness each day.

2 The dark is counted
Phytochrome measures each long night.

3 Leaves turn red
Flower buds start; the top leaves are red by midwinter.

4 The sign works
Bees or birds follow it to the nectar.

At home: 14+ hours of unbroken dark each night from about Oct 1. Out of short days, it turns green.

Long nights switch on the red sign.

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Diagram: https://thatiswhy.com/diagrams/why-poinsettias-turn-red/ · Full guide: https://thatiswhy.com/why-do-poinsettias-turn-red/