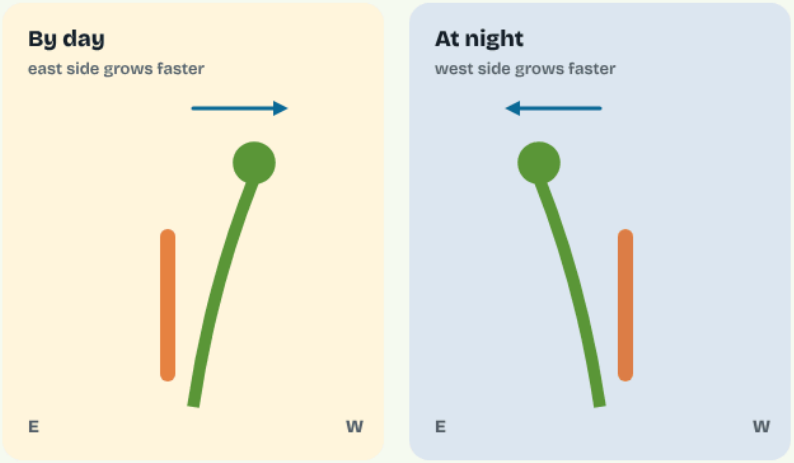
That is why

Why do sunflowers follow the sun?

Young plants grow one side of the stem faster, timed by an inner clock. Grown flowers settle facing east.

A Turning by growing



Orange = the faster-growing side of the stem

No hinge, no motor

The two sides of the stem take turns growing. Growth-hormone genes, not clock genes, behave differently on each side. So when growth slows near flowering, the tracking stops.

B A clock inside

1 Ready before dawn

Heads swing back east in the dark: "At dawn, they're already facing east again."

2 Fixed indoor light

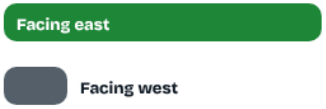
With a light that never moved, plants kept swaying for several days.

3 Wrong-length days

24-hour days: the night swing kept time. 30-hour days: movement went erratic.

C Why face east?

Pollinator visits



About 5 times more visits

east-facing heads warm faster in the morning

1 More payoffs

Petal UV markings light up, pollen comes out earlier, seeds are larger, and the pollen sires more offspring. Young plants kept from tracking: 7.5% less weight.

A young sunflower chases the sun; a grown one waits for it.

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Diagram: https://thatiswhy.com/diagrams/why-sunflowers-track-the-sun/ · Full guide: https://thatiswhy.com/why-sunflowers-follow-the-sun/