WEEK 01

ANTENNAE

How honey bees sense the world

TWO ANTENNAE. MANY SENSES.

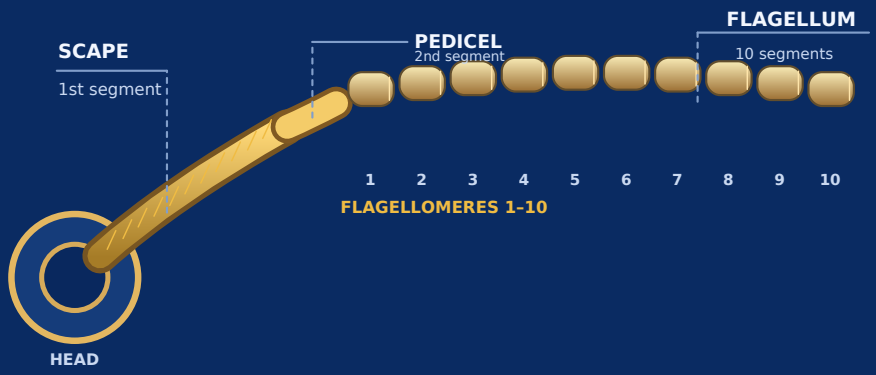
A honey bee uses two mobile, elbowed antennae to explore flowers, recognize chemical messages, and sense what is happening around it.



Photo: Tricks Bees 207 apiary

THE THREE MAIN ANTENNAL PARTS

Female honey bee antenna (schematic, not to scale)



FEMALE HONEY BEE: scape + pedicel + 10 flagellomeres

WHAT DO THE ANTENNAE SENSE?

01 ODORS
Floral scents and food cues

02 PHEROMONES
Chemical signals from other bees

03 TOUCH & MOTION
Contact and antennal movement

04 ENVIRONMENT
Temperature and humidity cues

BEE TIDBIT Female honey bees have 10 flagellomeres; drones have 11.

Sources: ASU Ask A Biologist • USDA-ARS Honey Bee Atlas

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