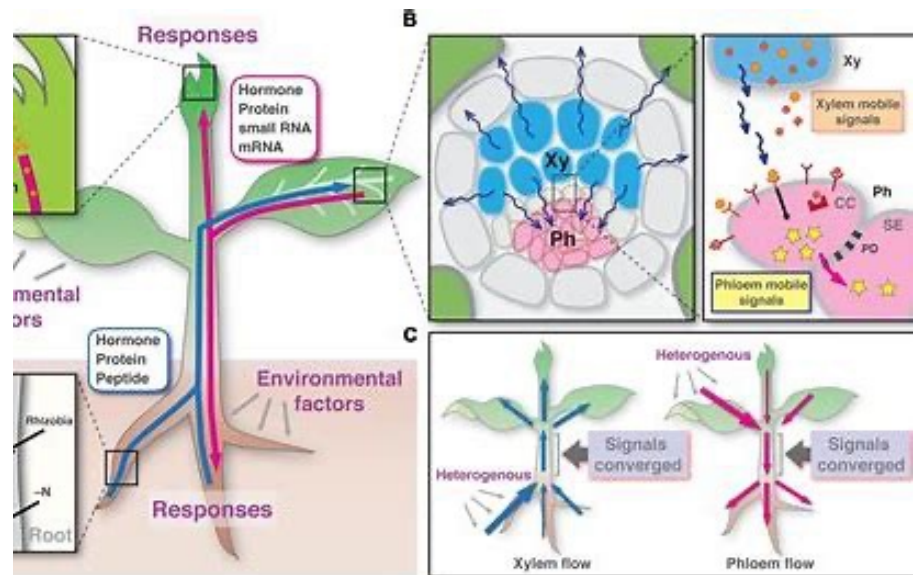


There's more to plants

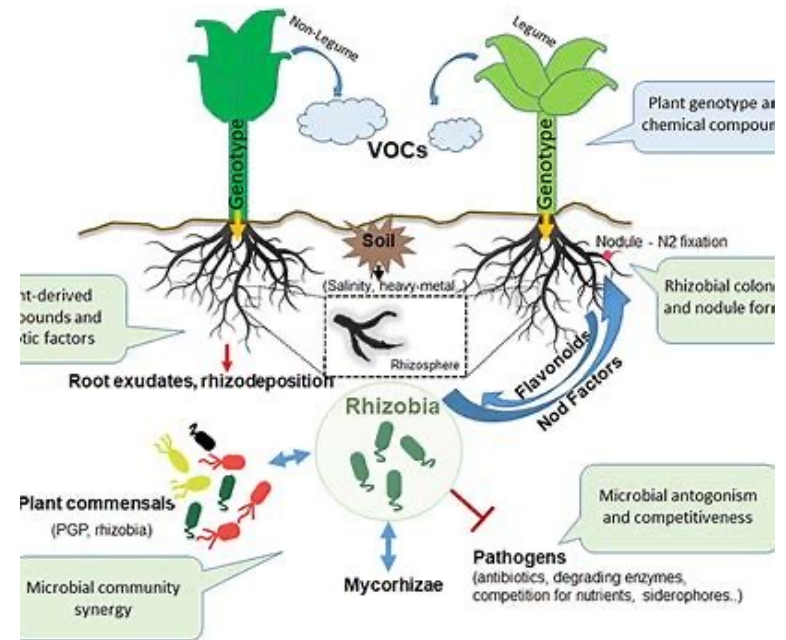
Thinking, perceiving and feeling



How plants think?

Can memory, consciousness, and communication be applied to plants?

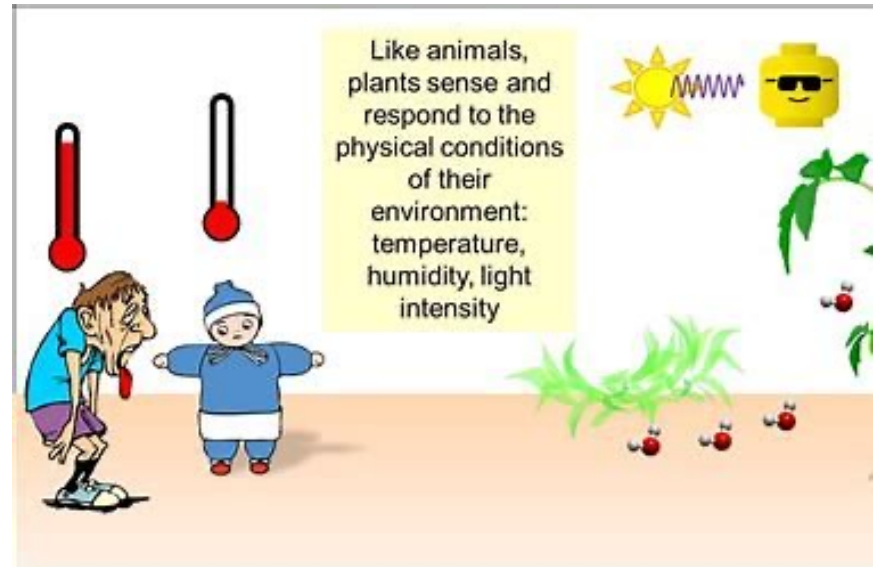
Plants show sensitivity to sound, store information and communicate with other plants and animals.



What do plants sense?

Plants sense light, touch, chemicals, microbes, animals and temperature, in unique ways. Plants sense light through photoreceptors and touch through mechanoreceptors. Temperature is remembered, and vernalization tells the plant when to flower. Plants can sense herbivore danger and produce protective responses.

Plants communicate with each other and other living things with liquid and volatile chemicals. This allows plants to develop symbiotic relationships or send warning.



How do plants communicate and react?

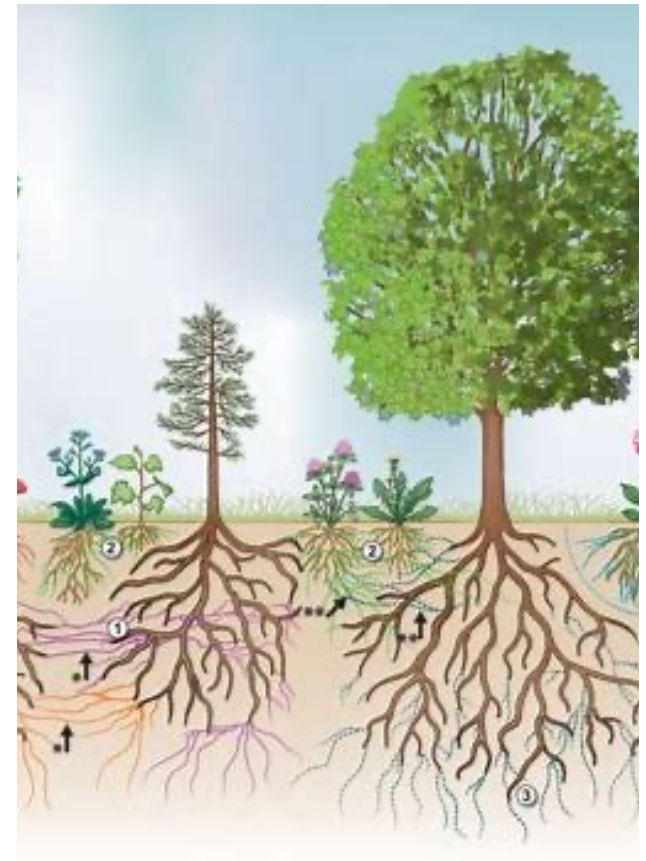
Plants can experience stress. Sensitive plants fold their leaves to protect them.

The Venus flytrap awaits two time-delayed touches to differentiate debris from food.

Plants react to the sounds of caterpillars chewing or bees buzzing by producing protective chemicals and increasing sugar content.

Tree roots partner with fungi to produce mycorrhizal networks which can pass warning signals to each other.

Plants can change their feature to mimic what they are growing on, and move to get the best light.



Plant-thinking song to *Have You Ever Seen a Lassie*

Have you ever seen a sunflower,
A sunflower, a sunflower,
Have you ever seen a sunflower
Go this way and that?
Now follow the sun,
'til daylight is done,
Have you ever seen a sunflower
Go this way and that?



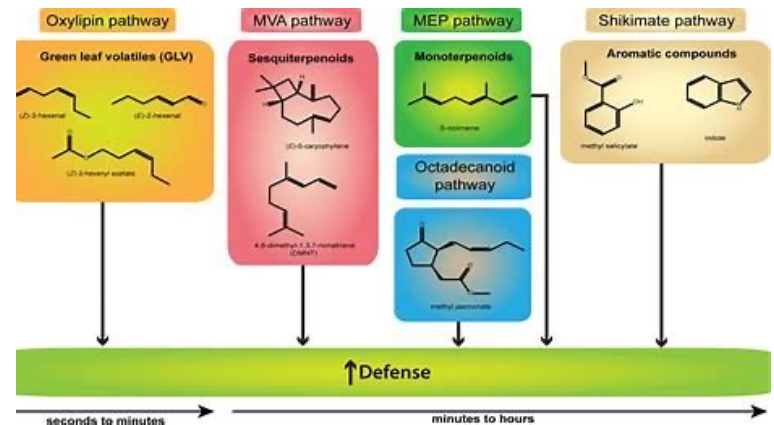
Finger thinking plants!

A plant can recognize danger, (looking scared)

A plant can welcome friends, (looking happy)

A plant can make a warning, (2 protective hands in front of face)

And to the network sends! (2 hands spreading out)



How might the plants communicate with each other?



Our thoughtful chatty plants!

Yes, plants communicate!

