

# 8 Things You Won't Believe Plants Do When No One's Looking



Plants don't get a lot of respect, because frankly, they don't do shit. They just kind of sit there waiting to be eaten, right? They can't move or think or make their plans against us.

Actually, that's just what they want you to think. It turns out that plants are capable of some pretty sophisticated, even downright nefarious schemes. For instance ...

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## #8. Eucalyptus Trees Napalm Their Enemies

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For most trees, fire is kind of a bad thing. Nothing burns better than a nice dry hunk of wood, and a tree is in no position to stop, drop and roll when you light a bonfire under it. The Australian eucalyptus tree takes advantage of this weakness in the same way as Schwarzenegger takes advantage of his enemies' vulnerability to bullets.



Koalas are endangered because *eucalyptus* has an anger-management problem.

Just like animals, plants compete with each other for space and territory, though most have only a limited ability to retaliate against some asshole fern setting up camp on their lawn. But when it comes to protecting their territory, eucalyptus trees have a scorched earth policy -- they not only are immune to forest fires, but also [actively encourage them](#).

You see, the eucalyptus itself is designed specifically to be the only tree standing after a fiery apocalypse -- they have stems hidden deep inside their trunks, ready to spring out once the smoke clears. So it basically spends its life throwing around gasoline, waiting for a spark.



"I love the smell of *us* in the morning."

And we're not exaggerating -- eucalyptus contains a kind of oil that is so flammable that the trees can actually [explode when they catch fire](#), like someone uttering a one-liner before flicking a cigar into a gas station. The leaf litter from eucalyptus trees is so full of toxic napalm that bugs and

fungus don't break it down -- it just dries out and covers the ground like a super-flammable carpet. If that weren't enough, the trees produce a bluish-gray cloud of [evaporated gas](#) that can go up like a fireball with one lightning bolt or thoughtlessly discarded cigarette butt.

An ill-advised plantation of eucalyptus has been blamed for the [1991 firestorm in California](#) that destroyed 3,000 homes, and it's no wonder -- eucalyptus is like that pyromaniac kid you knew in school who never left home without his matches. You know exactly who to blame when shit starts burning down in your neighborhood.

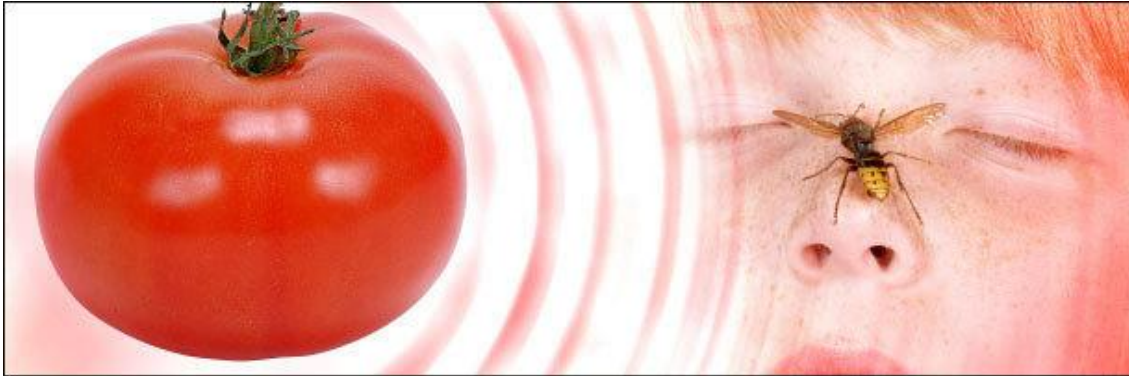


Eucalyptus: Nature's leafy arsonist.

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## #7. Plants That Command Insects

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Think about this the next time you take the shears to that dinosaur-shaped hedge in your backyard: science is discovering that some plants have the ability to [summon and command insects](#) like some lesser known *X-Men* character.



The other kids tend to give Bugneto a wide berth on the playground.

Take the common tomato, for example. If a caterpillar is chewing on it, [experiments show](#) that the humble tomato can throw up a chemical smoke signal that summons an army of parasitic wasps to come fight them off. Tobacco, too, calls for help from nearby predators to [fend off](#) the caterpillars of certain hawkmoths, leaf bugs and other pests. And just to be clear, it doesn't just randomly send out a chemical dog whistle for whatever carnivorous bug happens to be in the neighborhood -- it actually *summons specific predators according to whatever kind of pest it's trying to deal with*. Whatever is attacking it, it can summon that particular pest's predator.

Wait. How is that even possible? These are freaking plants, they don't even have the rudimentary brains of insects. How do they even know that they're being eaten, much less differentiate between who's eating them?



"Yeah, that's right, bitch. Pollinate my gooey sweetness.

Scientists believe that plants can sense the digestive substances that the invading insects have in their [oral secretions](#). Different bug drool sets off different chemical alarms, which call out to specific species of vicious wasps or mites or nematodes, whatever the job requires.



"INSECT SLAVES, ATTEND THE MIGHTY TOMATORG!"

But it's not just about violence. Plants can also manipulate insects for sweet, sweet loving. Orchids in particular have had [85 million years](#) to decipher the chemical signals that insects employ for communication, and they use these scents to basically trick them into becoming couriers for their plant-sperm. For example, many orchids can produce the scent of a female bug in heat. The purpose is to lure the male in and coat him in pollen. However, some orchids, like the Australian tongue orchid, recreate the scent so well that the male bugs end up [humping the flower](#) to completion.



So ... that plan sort of backfired, we guess.

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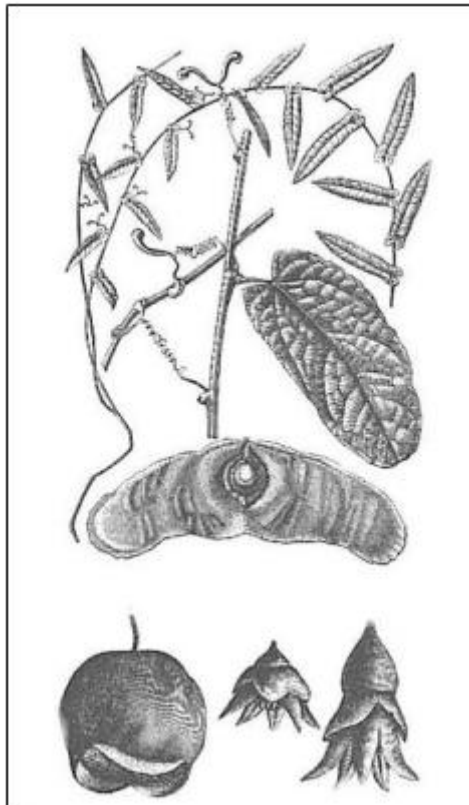
## #6. The Javan Cucumber Masters the Mechanics of Flight

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Sure, lots of plants use some kind of system for spreading their seeds far and wide using the wind, because it doesn't make sense for a tree to have to share the same patch of ground with multiple generations of offspring. So, the seeds will have some aerodynamic shape that lets them float through the air for a while. You've seen them. But all of them will still fall straight down if there's no wind.

Well, the Javan cucumber has crossed that hurdle.



Above: The Javan cucumber, as well as a rotten apple and Cthulhu's poop.

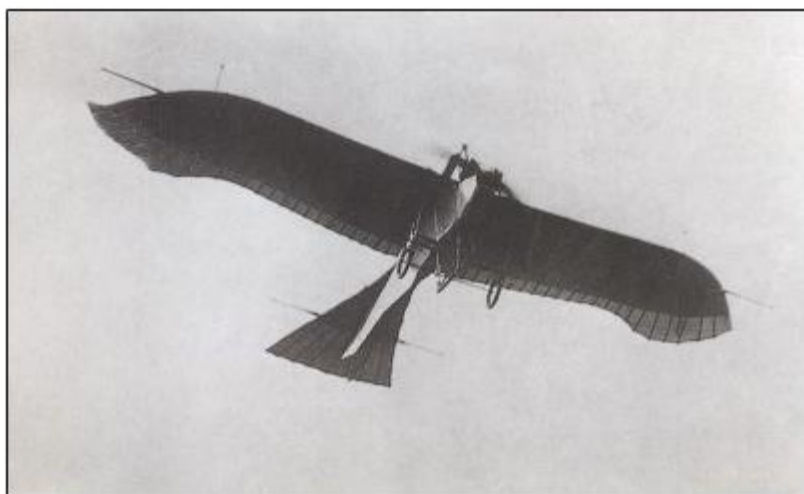
The seeds of the Javan cucumber have wings. Not wing-like protrusions that kind of help catch the wind. Not oddly shaped petals that just happen to provide lift. They've developed [actual wings](#) that can fly up to 100 meters with absolutely no wind, and much farther if there's a breeze.

The seed moves through the air in the [same way as a butterfly flies](#), utilizing air currents, stalls, dips and glides to carry itself for miles. Just a reminder: It is just a seed.



And a distant cousin to the Batarang.

In fact, these seeds fly so well that they were the templates for some of the world's first airplanes. Igo Etrich, an Austrian, and one of the pioneers of aviation, based his [glider designs](#) on the shape of this family of seeds. Mankind's baby steps along the path of air travel were aided by a plant with wings.



"Plant-based technology."



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## #5. Plants that Communicate and Cooperate

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As we mentioned, plants typically don't like to share their neighborhood with freeloaders. But when it comes to family, some plants will really stick up for their bros. When the common jewelweed is placed in a pot with an unrelated plant, the two will grow as quickly as possible, each trying to wrestle as many nutrients and minerals as possible away from the other. But when siblings are stuck together, they actually [rein in](#) their normal root development.



And they called us *crazy* for believing in the Plant Mafia.

It's not just that they don't murder each other -- they actually grow *less* than they normally would. Some plants can recognize their relatives and care enough about them to share food.

If it wasn't bad enough that plants are capable of telling their friends from their enemies, they can apparently collaborate with each other, too. When a willow tree is being eaten by caterpillars, it produces chemicals that the bugs have trouble digesting. But then nearby trees that haven't even been touched will *also start producing that chemical*. It's been discovered that once a willow gets chewed on, it releases [pheromones](#) into the air that other willows in the area can detect so that they can ramp up their own defenses.



"Five-O, Five-O!"

But that's not all. Plants can also signal each other when it's [time to bloom](#). If they throw up their blossoms randomly, herbivores can pick them off one by one, but if they coordinate, they can overwhelm the leaf munchers with sheer volume. But perhaps even more amazingly, or terrifyingly, tobacco plants can communicate with *totally different species*. To test this, scientists tortured sagebrush plants and found that nearby tobacco plants started producing their own [chemical defenses](#). If there's anything more terrifying than a horror movie becoming reality, it's the idea that the movie might be *The Happening*.



Now *that's* a twist.

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## #4. Marcgravia Evenia Outsmarts Bats

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So we've told you about plants that can outsmart insects, but maybe you didn't think that's all *that* impressive, since bugs are idiots. It's not like there are plants out there that can outwit creatures with higher order brain functions, right? Scientists didn't think so either, until they found a plant that could command goddamn bats.

Specifically, they found a Cuban vine they called *Marcgravia evenia*, which had evolved some kind of leafy satellite-dish attachment above its fruit clusters. Instead of being held out flat to catch the sun, like leaves are supposed to do, these were [cupped](#) and positioned to face straight ahead.



Yes, they look like lips. And yes, one scientist *did* try.

Why? It turns out the *Marcgravia* depends exclusively on bats for seed dispersal. The problem is that bats are blind as hell, but they find food using that annoying screeching noise that they make ... you know, sonar. The plant has formed those leaves to be perfect reflector dishes for those signals.

Tests showed that bats found the plant [50 percent faster](#) with these special leaves than without. Their research also demonstrated that the echo from the leaves would sound conspicuously constant from just about every angle. To an animal who sees almost exclusively with sound, the *Marcgravia* is the "brightest" flower on the sonic landscape. That's right, it's a plant with its very own bat signal.



"No, Robin, it's not the Joker, just that plant again."

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### #3. The Dodder Vine Hunts Its Prey

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The dodder is a parasitic vine that depends completely upon another plant for its food. It doesn't have roots or leaves, and unlike almost any other plant, it can't photosynthesize. In order to survive, it needs to suck the juice straight out of another plant. But it's not as simple as just landing in a tree and sinking its fangs in -- like any vampire, it has to hunt down its victims, a difficult prospect for any flora.



If plants made monster movies, this would be the villain.

But for the dodder vine, it really ain't no thing. Lab tests show the dodder can [smell specific other plants](#) and then grow in their direction. The dodder has such a keen sense of "smell" that it can also differentiate between a good host and a bad one. Once it slithers itself around an appropriate victim, it wraps itself tight and presses special [feeding nodes](#) against the doomed victim until they pierce the juicy

flesh. We don't know about you, but none of us are going to spend too much time standing in one place from now on.



That tree could just as easily be your throat.

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## #2. Plants That Move Faster Than a Bullet

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Plants are nearly universally defined by their total inability to move. You can threaten a plant with a chainsaw and it won't even flinch, no matter the horror that it might feel deep down. Or at least that's what you thought.

Actually, there are quite a few plants that move around with some surprising speed. None can get up and walk away (at least none that we know about), but the telegraph plant (or dancing plant) throws everything you think you knew about plant mobility out the window. Each of its leaves is mounted on a [tiny hinge](#), and it actually twitches and moves around like the Whomping Willow from Harry Potter.

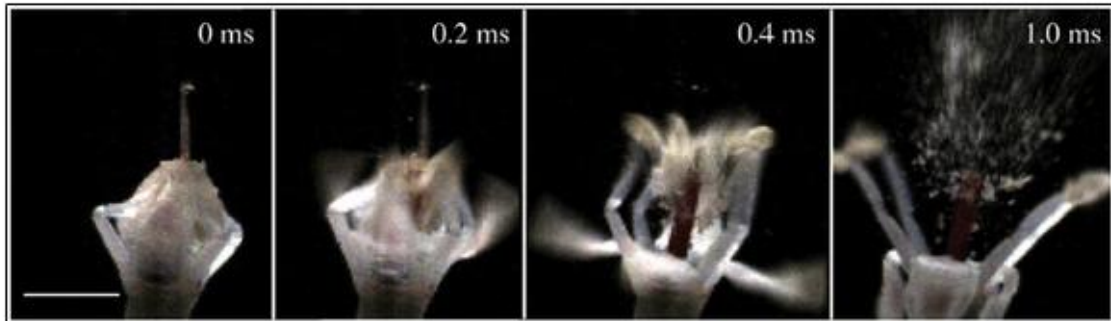
But the fastest plants use their lightning speed to spread their pollen around. The trigger plant will actually fire its pollen at a nearby insect's face like it's trying out for a low-budget porno. This plant sperm trebuchet launches its attack 15 milliseconds after it's triggered and hits with enough force to [stun the insect](#). Yes, it physically staggers and disorients insects with a blast from its reproductive organs.



In other words, it can blast a load in your face before you realize it has the hots for you.

And yet that isn't nearly the most powerful moneyspot in the world. The mulberry tree launches its pollen at over half the [speed of sound](#) (nearly 400 mph). But the title of "fastest plant" goes to the bunchberry

dogwood tree. It launches its pollen in under [one millisecond](#). Almost nothing in the animal kingdom moves faster. The plant accelerates its launching mechanism at 2,400 times the force of gravity, or about 800 times what an astronaut might experience during liftoff. Not bad for a plant semen cannon.



"How many people has *your* ejaculation killed?"



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## #1. Figs Make Bargains and Punish Freeloaders

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As you probably already know, plants and insects have a very important relationship. The plant gives out nectar, and in return, the insect pollinates the plant. But what happens if the bug doesn't live up to its side of the bargain? What's the plant going to do about it? File a complaint? Ask him to leave? The bugs pretty much get the sweet end of this deal. They get to eat for free, and maybe they'll deliver some pollen ... if they feel up to it after their nap.

Fig trees don't take that kind of thing lying down.



They take it *hanging* down.

Fig trees have a partnership with a particular wasp called a fig wasp. The wasp needs the plant because it needs food, and it [lays its eggs in the fruit](#). In exchange, the wasp is expected to pollinate that fruit while it's there so the tree can reproduce. Fig trees can't reproduce without the wasps, wasps can't live without the tree. But that brings us back to the old problem: What if a particular wasp just doesn't give a shit? He eats the fruit and does whatever he wants, right?

Nope. The fig tree will get back at it by *murdering its family*.



"Those are some nice eggs. Pity if anything were to *happen* while they were inside my body."

Researchers experimented with this by introducing non-productive wasps (that is, wasps that weren't carrying pollen) to fig fruit. The bugs went about their business and laid eggs. However, most of the time the unpollinated fruit was [dropped early](#), killing the wasp larvae within.

That's right -- the fig tree was *aborting the young of wasps that did not pollinate them*. Somehow, the plant knows when there are insects in its individual fruit, and it also knows if they brought pollen with them. And if they don't, then they get evicted ... street style.



"Figs play for keeps, *motherfucker*."