

**Screaming Plants**  
**By Mindy Thomas**

**The Pop Ups.** Stay seated. Three, two, one, ignition. Get ready for an adventure of magnificent proportion.

**The Pop Ups.** (Singing.) I don't know what you've been told, but we're in a golden age - so many discoveries that are jumping off the page. Wow in the world. Wow in the world.

**The Pop Ups.** With Guy and Mindy. We're on our way, Houston.

<<Scene opens on Guy outside in his vegetable garden>>

**Guy.** Ahhh Good Morning, my beautiful lovelies! Can I get you something to drink on this fine day? How about some refreshing water? <<Hose spray or watering can pour>> There you go...

**Guy.** Ahh, what a beautiful morning! Blue skies, the sun is shining, the neighborhood is peaceful! Ahhhh...

<<We hear Fingerling and G-Force walking up and bickering>>

**Fingerling.** The problem is it's all dried out!

**Gramma G-Force.** It's supposed ta be dry! It's from the desert Fingerling!

**Guy.** Uhhh..

**Fingerling.** Well, maybe you should quit choppin it's limbs off, G-Force!

**Gramma G-Force.** Maybe I should quit choppin your limbs off, Fingerling!

**Fingerling.** Be my guest!

**Guy.** <<Frustrated sigh>> well the neighborhood was peaceful.

**Fingerling.** Oh, hey there, Mr Razzy! Whatcha doin' in your vegetable garden? Talking to your plants again?

**Guy.** Well I...

**Gramma G-Force.** Sounds like you need to come with us.

**Guy.** What? Why? Where are you going?

**Fingerling.** To the farmer's market! They got an advice booth for plants!

**Guy.** An advice booth...for plants?

**Gramma G-Force.** Yeah, this cactus I got here is stressed, depressed and i'm gonna see if I could get it some life advice.

**Guy.** Huh?

**Fingerling.** And my wheat here has been giving me a lot of attitude. Gonna see if we could get some advice on how to communicate better.

**Guy.** Oh uh... fine...i'll go to the farmer's market with you. I do need more raw honey anyway.

**Gramma G-Force.** C'mon then, Garage. And bring yer termato plant too.

**Guy.** Uhhh, why?

**Fingerling.** Because how else are they gonna give it advice?!

**Guy.** Well I figured they'd give **me** the advice and then I would bring it-

**Gramma G-Force & Fingerling.** Just bring the plant!

**Guy.** Ok! Fine! [Effort noise] <<Guy picks up plant>>

.

<<They start walking>>

**Guy.** [Becoming more excited] wow a plant advice booth... you know, this actually might be a good idea! Whoever's running the plant advice booth is probably really knowledgeable!

<<Scene changes to farmer's market>>

<<People milling about>>

<<Cozy, happy, farmer's market music playing>>

<<A friendly greeter in the distance lets us know where we are>>

**Greeter.** Welcome to the farmer's market. Fresh produce to the left, craft items are to the right... welcome to the farmer's market.

**Mindy.** <<On megaphone>> Ahem...plants! Calling all plants! <<Crowd reacts>> our free advice for plants booth is open for business!

**Dennis.** <<On megaphone>> That's right! We're open for business!

**Reggie.** <<On megaphone>> Cool!

**Mindy.** <<On megaphone>> are you a plant who's stressed, depressed, and under duress?!

**Guy.** <<from in the distance>> Dennis? Mindy?? Reggie???

**Gramma G-Force.** <<Walking up>> I shoulda know'd this was a scam.

**Guy.** Mindy, what are you doing? [Effort noise]

<<Guy sets down potted tomato plant>>

**Mindy.** Oh! Hi Guy Razy! Hello, Guy Razy's prize winning tomato plant! Aren't you looking happy and healthy today?

**Reggie.** Cool

**Gramma G-Force.** Mindy, my cactus needs therapy!

**Guy.** Oh boy, here we go..

**Fingerling.** And my wheat's givin' me attitude!

**Reggie.** Cool

**Mindy.** Okay! No need to worry, that's what we're here for!

**Guy.** Mindy, you've literally killed every plant i've ever given to you!

**Mindy.** That's not true!

**Guy.** Oh yeah? What about the time I gave you an orchid and you fed it cereal until all of the petals fell off and the roots rotted!

**Mindy.** Okay, so that was the past. But today is the future Guy Raz! And let's just say <<on megaphone>> i've "turned over a new leaf."

**Dennis.** Yeah Guy! <<On megaphone>> a new leaf!

**Guy.** <<Groan>>

**Mindy.** And this new leaf i'm turning over is brought to you by new peer reviewed scientific research from a bunch of biologists from Tel Aviv University in Israel and published in the Scientific Journal Cell!

**Guy.** Wait... it is?

**Dennis.** Wait... it is?

**Gramma G-Force.** Well, does science know why my cactus is so sad, saggy, and shriveled up?

**Fingerling.** Or does it know how to get my wheat to stop giving me so much attitude?

**Mindy.** Well, I could tell you....

**Everyone but Mindy.** Yesssssss?

**Dennis.** Oh! Oh! I know! But she'd rather show you!

**Mindy.** Nope! Not this time. Instead I'd rather let you hear from your plants directly!

**Guy.** But Mindy, plants don't talk.

**Mindy.** Well, maybe not the way humans do, but what if I told you that plants have the unique ability to uh...express their stress or discomfort...in their own...audible way.

**Fingerling.** So Wendy...tell us...how do plants throw temper tantrums?

**Mindy.** Well, why don't we hear from the plants?

**Dennis.** Oooh good idea, Mindy!

**Everyone else.** <<Mumbles of okay>>

**Fingerling.** Ok, ok, I suppose

**GForce.** well, I guess

**Guy.** Alright, i'm interested.

**Mindy.** Now, which plant would like to go first?

**Guy.** Well, if the other plants don't mind, i'm sure my tomato plant would be more than happy to go first.

**Gramma G-Force.** <<Under breath>> first is the worst.

**Mindy.** Okay, great! Step right up here, and gently place your tomato plant inside this wooden box in front of the microphones here....

**Guy.** The microphones?

**Mindy.** Yeah, for the actual scientific study, the scientists from tel aviv university placed different plants like tomato plants inside wooden, soundproof boxes with two microphones pointed at their stems...

**Guy.** Huh.

**Mindy.** Dennis, will you please assist Guy Raz here in placing his prize winning tomato plant inside the box?

**Dennis.** Aye aye, captain Mindy! [Effort noise] <<throws plant in the box>>

**Guy.** Easy there Dennis! Her leaves are very delicate!

<<Closes box>>

**Guy.** <<Groan>>

**Dennis.** There we go...

**Mindy.** Now, I'd like everyone to take a set of magnifying ears here...for you Gramma G-Force..

**Guy.** Oh, I got it. They're headphones, only they look and feel like oversized human ears.

**Mindy.** Okay, now...does everyone have their magnifying ears on securely?

**Everyone but Mindy.**

**Guy.** What???!

**Dennis.** What'd you say?

**Fingerling.** Huh??!

**Gramma G-Force.** I can't hear nuthin'!

**Mindy.** Ok, great! Let me turn *my* microphone here...hows' that?

**Everyone but Mindy.** Ahhhhh!

**Mindy.** Okay...volume down, volume down...now, allow me to turn on the tomato plant's microphones....<<switch flip>> there we go...

<<New ambient frequencies>>

**Everyone.** Oooooo...

**Gramma G-Force.** I hear something with my floppy ears

**Mindy.** ....Now..Guy Raz's tomato plant. My name is Mindy and if you can hear me, I would like you to tell us, what's bothering you today?

**Tomato plant.** .....

**Guy.** Uhh, what are we supposed to be hearing, Mindy?

**Gramma G-Force.** I don't hear nuthin'!

**Reggie.** Coo

**Mindy.** What you're hearing...or rather not hearing, is the sound of a happy plant!

**Everyone but Mindy.** Huh?

**Gramma G-Force.** That don't make no sense

**Mindy.** Guy Raz obviously treats his tomato plant so well, that it has nothing to complain about!

**Dennis.** Oooh... well that's boring.

**Mindy.** Okay, who's next?

**Mindy.** How about we try Thomas Fingerling's wheat plant?

**Fingerling.** Okey doke! C'mon wheaty. Let's get you in the box. [Effort noise]  
<<plops the plant in the box>> there we go...

**Mindy.** Okay, now Thomas Fingerling, I want you to ask your wheat plant...

**Fingerling.** Wheaty

**Mindy.** Yes, I want you to ask "Wheaty" how it's feeling...

**Reggie.** Coo

**Fingerling.** Alrighty...uh...Wheaty...I know I haven't been the best father to you on account of I deprive you of water, light, and I never liked playing catch with you in the backyard or taking you fishin' down at the crick...

Plant: <<loud pops and clicks>>

**Guy.** What was that?

**Everyone but Mindy.** Ahhhhhh!

**Fingerling.** By golly it's a talking plant!

**Guy.** Fascinating!!

**Mindy.** Aha! Now **that** is the sound of an unhappy houseplant!

**Everyone but Mindy.** Ooooh...

**Gramma G-Force.** Well well..

**Mindy.** What you just heard with those pops and clicking sounds is exactly what the researchers found in their study!

**Guy.** That plants complain through pops and clicks? Almost like they have their own language?

**Mindy.** Exactly!

**Gramma G-Force.** Well I ain't never heard a plant talk before.

**Mindy.** Oh, well keep in mind, Gramma G-Force, that we're all wearing magnifying ears right now. Which are lowering the frequency and raising the volume of the sound so that we can hear it.

**Dennis.** And by magnifying ears, you mean these headphones?

**Mindy.** Dennis!

**Dennis.** Oh right, yes, I mean, the magnifying ears... right.

**Guy.** Ah, I see...are you suggesting Mindy, that the sounds that plants make are too high pitched for humans to hear?

**Mindy.** That's exactly what i'm saying!

**Reggie.** Coo

**Fingerling.** So who in the world wide web are they talking to then?!

**Mindy.** Well they're complaints might be too high pitched for us, but for other animals in nature like mice and moths, these plants could be heard from all the way across a room! Or more!

**Dennis.** Wowwww

**Fingerling.** Well, i'll be.

**Reggie.** Coo

**Mindy.** Now, who's up next? Gramma G-Force? I see you've got a disfigured cactus over there...

**Gramma G-Force.** Yeah, I been cuttin' pieces off whenever they get all shriveled up.

**Guy.** Let's put it in the box and see if it can tell us what it needs to be healthy.

**Gramma G-Force.** Well okay...here ya go cactus...into the casket. <<Dumps plant in the box>>

**Guy.** The what?!

**Mindy.** Okay, everyone got their magnifying ears on?

**Reggie.** Coo

**Everyone but Mindy.** Yeah! Yep! Uh huh!

**Mindy.** Great...now Gramma G-Force, i'd like you to ask your cactus how she's feeling....

**Gramma G-Force.** Wellll ok...hey! What's wrong with you cactus?! Why you gotta act like that!? What'd I never do to you cactus!?

**Cactus.** <<Series of pops and clicks>>

**Everyone.** <<Surprised reactions>>

**Cactus.** <<Pops and clicks continue>>

**Mindy.** That cactus is not happy

**Reggie.** Coo

**Guy.** Wait so Mindy, did the scientists from the *real* study know what the plants were trying to communicate?

**Mindy.** Ah! Now *that's* a good question Guy Raz!

**Dennis.** Show off.

**Mindy.** So the researchers conducted...an experiment!

**Everyone but Mindy.** Oooohh!

**Gramma G-Force.** Oooh wow

<<Enter storytime>>

**Mindy.** For this experiment, the researchers collected a variety of different plants, like a tomato plant, and a wheat plant, a pincushion cactus, and even a grape vine, and one by one, they put the plants into a soundproof box containing two special microphones.

**Mindy.** Next, the plants were broken up into three groups. In the first group, the plants were happy plants.

**Guy.** So like plants that were cared for, watered regularly, and given just the right amount of sunlight?

**Mindy.** Exactly! Just like your tomato plant Guy Raz!

**Reggie.** Coo

**Fingerling.** What were the other groups?

**Mindy.** The second group of plants were plants that had been neglected for days. Plants that were not given any water or sunlight, and were generally just forgotten about.

**Fingerling.** Huh. Sounds kinda just like me and you, wheaty!

**Mindy.** And the third group of plants, were plants that were mercilessly chopped off at the roots. Sliced, diced, and spliced...

**Dennis.** Ooo! Kinda just like your angry cactus, granny g!

**Mindy.** Next...they did what any good scientist would do. They observed. Which in this case means, they listened.

<<Sfx of pops and clicks getting louder and louder>>

**Everyone but Mindy.** Oooo

**Mindy.** And what they discovered was that the plants in the first group...

**Guy.** So the plants that had been properly cared for like mine...

**Mindy.** Right. Those plants were mostly quiet! They didn't have much to complain about.

**Reggie.** Coo

**Gamma G-Force.** And what about the bad plants?

**Mindy.** Well, for the other groups of plants...the ones that had been damaged or dehydrated, the researchers discovered that those plants, produced sounds! Pops and clicks almost like knuckles cracking!

**Fingerling.** Ya don't say...

**Mindy.** They then created a computer program that could analyze and translate these sounds– ya know, figure out what the plant was complaining about. And this program was correct a whopping 70 percent of the time!

**Everyone but Mindy.** Woooooow...

**Dennis.** So cool!

<<End storytime>>

**Guy.** Scientists believe that the sounds they produce could be caused by something called "cativation"

**Mindy.** Inside every plant there is a system of very tiny little pipes that run through the plant, delivering water and nutrients.

**Reggie.** Coo

**Guy.** Huh.

**Mindy.** And differences in pressure throughout these pipes cause teeny tiny air bubbles to enter. And these bubbles grow and grow and grow until finally...they pop!

**Reggie.** Coo

**Guy.** Ah, and the pops sends mini shock waves throughout the plant, producing a super high pitched sound like the pops or clicks we just heard!

**Mindy.** Yes, but like I said earlier, this isn't a sound that humans can hear.

**Mindy.** What these scientists are hoping is that by taking what they've learned, that one day, farmers, plant growers, and regular people like us might be able to listen to and understand what our plants need from us, *before* it's too late.

**Dennis.** Okay you two, we have work to do!

**Reggie.** Coo

**Mindy.** Oh yeah! Guy Raz, do you want to help?

**Guy.** Sure!

**Mindy.** <<Picks up megaphone>> ahem...plants! Calling all plants!

**Guy.** <<On megaphone>> who's up next for some free plant advice?

<<Crowd rushes the booth>>

<<Fade out>>

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The End