

1

00:00:00,000 --> 00:00:07,000

Please, don't try anything that you're about to see us do at home.

2

00:00:07,000 --> 00:00:09,000

Ever.

3

00:00:09,000 --> 00:00:16,120

On this episode of MythBusters, it's a botanical bonanza when Jamie and Adam shoot wind at

4

00:00:16,120 --> 00:00:26,360

record speeds to test the myth that in a storm a piece of straw can slice clean through a

5

00:00:26,360 --> 00:00:27,360

palm tree trunk.

6

00:00:27,360 --> 00:00:31,280

That is the coolest thing I've ever seen.

7

00:00:31,280 --> 00:00:36,720

And meanwhile, to find out if plants have feelings, Grant and Tori embrace their inner

8

00:00:36,720 --> 00:00:43,000

sadist and convert the workshop into a horticultural house of horrors.

9

00:00:43,000 --> 00:00:44,680

You hear it screaming?

10

00:00:44,680 --> 00:00:47,080

Science isn't always pretty.

11

00:00:47,080 --> 00:00:49,680

Who are the MythBusters?

12

00:00:49,680 --> 00:00:53,680

Adam Savage.

13

00:00:53,680 --> 00:00:54,680

And Jamie Heinemann.

14

00:00:54,680 --> 00:00:57,840

Aren't Tracer rounds illegal?

15

00:00:57,840 --> 00:01:01,360

Between them over 30 years special effects experience.

16

00:01:01,360 --> 00:01:03,600

That's what I'm talking about.

17

00:01:03,600 --> 00:01:06,120

Joining them, Tori Bellachy.

18

00:01:06,120 --> 00:01:07,120

What could go wrong?

19

00:01:07,120 --> 00:01:08,120

Carrie Byron.

20

00:01:08,120 --> 00:01:09,800

We're going for total annihilation.

21

00:01:09,800 --> 00:01:10,800

And Grant Imahara.

22

00:01:10,800 --> 00:01:13,040

I'm pooping as fast as I can.

23

00:01:13,040 --> 00:01:16,000

They don't just tell the myths.

24

00:01:16,000 --> 00:01:21,240

They put them to the test.

25

00:01:21,240 --> 00:01:30,840

What's the myth?

26

00:01:30,840 --> 00:01:33,440

This is what I've been wanting to do since we started doing this show.

27

00:01:33,440 --> 00:01:37,840

It is that in a tropical storm the winds can become so powerful that they'll take a piece

28

00:01:37,840 --> 00:01:42,520

of straw and give it enough energy to drive it right through a palm tree.

29

00:01:42,520 --> 00:01:44,680

That sounds like it's right down our alley.

30

00:01:44,680 --> 00:01:48,800

Small objects accelerated to really, really high speeds and see what they do, what kind

31

00:01:48,800 --> 00:01:50,320

of damage we can achieve.

32

00:01:50,320 --> 00:01:54,200

I can barely wait.

33

00:01:54,200 --> 00:01:59,600

Storms can be incredibly powerful, but can they propel a fragile piece of straw so fast

34

00:01:59,600 --> 00:02:01,840

it becomes a flying missile?

35

00:02:01,840 --> 00:02:05,600

At the wind speeds they reach, anything is possible.

36

00:02:05,600 --> 00:02:07,600

Any guesses?

37

00:02:07,600 --> 00:02:09,160

200 miles an hour.

38

00:02:09,160 --> 00:02:10,160

Keep going.

39

00:02:10,160 --> 00:02:12,160

250 miles per hour?

40

00:02:12,160 --> 00:02:13,160

Nope.

41

00:02:13,160 --> 00:02:14,160

You got to keep going.

42

00:02:14,320 --> 00:02:21,480

The highest ever recorded wind speed was taken using Doppler radar in Oklahoma City in 1999

43

00:02:21,480 --> 00:02:25,200

and they got 318 miles an hour.

44

00:02:25,200 --> 00:02:26,200

No way.

45

00:02:26,200 --> 00:02:27,560

I don't know how we're going to do that.

46

00:02:27,560 --> 00:02:31,680

We could use a jet, but it would burn everything to ash while we tried to use it.

47

00:02:31,680 --> 00:02:32,680

No, it's simpler than that.

48

00:02:32,680 --> 00:02:38,440

I have a trick up my sleeve and it involves a really big air gun.

49

00:02:38,440 --> 00:02:39,920

I like it.

50

00:02:39,920 --> 00:02:45,040

The plan is to get an air compressor, attach it to a metal tank with a release valve, attach

51

00:02:45,040 --> 00:02:50,320

that to a very long pipe that will act as the barrel and at the end of it all place

52

00:02:50,320 --> 00:02:51,320

the target.

53

00:02:51,320 --> 00:02:55,600

A very tall, swaying palm.

54

00:02:55,600 --> 00:02:59,800

Jamie lays out a 5 foot long 4 inch diameter metal pipe.

55

00:02:59,800 --> 00:03:04,120

This will be the main body of the shooter that will contain the compressed air just before

56

00:03:04,120 --> 00:03:06,440

it's released.

57

00:03:06,440 --> 00:03:11,400

Then he screws on a device that will tell them what PSI or pounds per square inch of

58

00:03:11,400 --> 00:03:13,440

pressure they're at.

59

00:03:13,440 --> 00:03:15,920

We have to have a gauge on it to measure the pressure.

60

00:03:15,920 --> 00:03:21,480

That will be this device right here which will attach to the pipe.

61

00:03:21,480 --> 00:03:26,480

Adam fashions a simple loader for the ammo by cutting a slot into a piece of pipe and

62

00:03:26,480 --> 00:03:32,520

fitting a cylindrical plastic tube over the top that simply slides back and forth.

63

00:03:32,520 --> 00:03:34,520

I'm making what's called a breach loader.

64

00:03:34,520 --> 00:03:38,120

Basically it will allow us to pop in whatever we're going to fire out of it whether it's

65

00:03:38,120 --> 00:03:42,880

straw or toothpicks or anything and close it back up.

66

00:03:42,880 --> 00:03:47,760

With Adam stuck in the breach, Jamie adds a release valve that has a lightning fast

67

00:03:47,760 --> 00:03:49,360

electronic trigger.

68

00:03:49,360 --> 00:03:53,160

It's one of his most loved toys and has a very long name.

69

00:03:53,160 --> 00:03:56,840

This particular thing is one of my favorite gadgets and it's called a pilot assisted

70

00:03:56,840 --> 00:04:02,440

diaphragm valve and that means that it's kind of in a state of almost being ready to

71

00:04:02,440 --> 00:04:06,200

trip and then when you hit the trigger all of a sudden it goes pop and all the air goes

72

00:04:06,200 --> 00:04:07,320

through.

73

00:04:07,320 --> 00:04:10,640

Air pressure alone won't give the straw the thrust it needs.

74

00:04:10,640 --> 00:04:16,440

To get enough momentum going it's going to need a really good run up on a very long track,

75

00:04:16,440 --> 00:04:17,440

the barrel.

76

00:04:17,440 --> 00:04:21,400

Unfortunately we're limited to about 150 PSI here in the shop.

77

00:04:21,400 --> 00:04:27,120

Our solution to that is to have a massively long barrel and that will give us the velocity

78

00:04:27,120 --> 00:04:31,240

that we need by the time we get to the end of the barrel it should be going quite fast.

79

00:04:31,240 --> 00:04:36,760

Jamie and Adam start to connect lengths of half inch diameter copper pipe end to end.

80

00:04:36,760 --> 00:04:40,360

Piece by piece they solder on down the workshop floor.

81

00:04:40,360 --> 00:04:45,080

But just how long does this super stretched out straw airstrip need to be?

82

00:04:45,080 --> 00:04:46,680

Hey that's enough.

83

00:04:46,680 --> 00:04:47,680

One more.

84

00:04:47,680 --> 00:04:48,680

No come on.

85

00:04:48,680 --> 00:04:50,440

This is, we got 60 feet here.

86

00:04:50,440 --> 00:04:52,080

We're going to go for the max sooner or later.

87

00:04:52,080 --> 00:04:53,800

Might as well do it now.

88

00:04:53,800 --> 00:04:54,800

Okay.

89

00:04:54,800 --> 00:04:56,400

What the hey?

90

00:04:56,400 --> 00:05:01,200

They extended out even more and take it all the way to 80 feet.

91

00:05:01,200 --> 00:05:06,920

With a barrel this size the straw may streak down the middle so fast it breaks some records.

92

00:05:06,920 --> 00:05:12,840

I'm a little nervous to say this right now but I think we might exceed Mach 1 on this.

93

00:05:12,840 --> 00:05:15,840

Now they've got the length they have to make it straight.

94

00:05:15,840 --> 00:05:19,920

The more we can eliminate any bends in the system the more efficiency we'll get out of

95

00:05:19,920 --> 00:05:23,800

it and by efficiency I mean insane amounts of speed.

96

00:05:23,800 --> 00:05:26,000

Here's my laser.

97

00:05:26,000 --> 00:05:30,520

To get the pipe to line up just right they're going to use one of Adam's favorite toys

98

00:05:30,520 --> 00:05:31,520

now, a laser.

99

00:05:31,520 --> 00:05:34,400

You need to go up just a tiny bit.

100

00:05:34,400 --> 00:05:35,400

Stop.

101

00:05:35,400 --> 00:05:36,400

Wow.

102

00:05:36,400 --> 00:05:37,400

Stop.

103

00:05:37,400 --> 00:05:40,000

That looks just about right.

104

00:05:40,000 --> 00:05:43,640

That is pretty darn good.

105

00:05:43,640 --> 00:05:48,320

With the kinks all ironed out all that's left to do is cement it into place.

106

00:05:48,320 --> 00:05:53,080

While Jamie gets gluing Adam goes to fetch the target, the palm tree.

107

00:05:53,080 --> 00:05:54,080

Hi.

108

00:05:54,080 --> 00:05:55,080

Hi Dale.

109

00:05:55,080 --> 00:05:56,080

Yes sir.

110

00:05:56,080 --> 00:05:58,080

Adam Savage, nice to meet you.

111

00:05:58,080 --> 00:05:59,080

Pleased to meet you.

112

00:05:59,080 --> 00:06:04,320

Owner of the Neon Palm Nursery, Dale Matizka has been fascinated by the exotic allure

113

00:06:04,320 --> 00:06:09,840

of these tropical plants for 30 years and is an oasis of information.

114

00:06:09,840 --> 00:06:15,840

There's a myth going around that in a strong enough wind a piece of straw can be driven

115

00:06:15,880 --> 00:06:18,440

right through the trunk of a palm tree.

116

00:06:18,440 --> 00:06:19,440

Have you ever heard this?

117

00:06:19,440 --> 00:06:20,680

I believe it's true.

118

00:06:20,680 --> 00:06:21,680

Really?

119

00:06:21,680 --> 00:06:22,680

Oh yes.

120

00:06:22,680 --> 00:06:24,480

It's a different kind of trunk than most trees.

121

00:06:24,480 --> 00:06:29,000

They have what's called vascular bundles of fibers and they're sort of if you can imagine

122

00:06:29,000 --> 00:06:30,680

like a braided cable.

123

00:06:30,680 --> 00:06:35,560

So you're saying it's actually a property of the palm trunk that perhaps makes it more

124

00:06:35,560 --> 00:06:38,040

permeable than we think of a normal tree trunk?

125

00:06:38,040 --> 00:06:39,040

This is correct.

126

00:06:39,040 --> 00:06:40,360

Let's check this one out.

127

00:06:40,360 --> 00:06:42,160

It's Washingtonia Robusta.

128

00:06:42,160 --> 00:06:45,080

Is this the one you're actually thinking of letting us work with?

129

00:06:45,120 --> 00:06:46,120

Yes.

130

00:06:46,120 --> 00:06:47,120

Cool.

131

00:06:47,120 --> 00:06:49,600

It's a big boy.

132

00:06:49,600 --> 00:06:50,600

Yeah.

133

00:06:50,600 --> 00:06:52,840

Big boy is an understatement.

134

00:06:52,840 --> 00:06:55,680

Okay, ready for takeoff.

135

00:06:55,680 --> 00:07:00,680

The palm is nearly 20 feet tall and a Robusta 3,000 pounds.

136

00:07:00,680 --> 00:07:04,680

Look at that.

137

00:07:04,680 --> 00:07:09,160

So will Jamie be surprised at the size of Adam's trunk?

138

00:07:09,160 --> 00:07:10,640

Jamie's reaction.

139

00:07:10,640 --> 00:07:14,560

Oh God, I hope I get this right because then you can cut him right back to back.

140

00:07:14,560 --> 00:07:18,760

He's going to go.

141

00:07:18,760 --> 00:07:23,520

What did you do?

142

00:07:23,520 --> 00:07:28,080

It may have seemed like a good idea at the store, but back home the rush of Adam's major

143

00:07:28,080 --> 00:07:29,920

purchase is fading.

144

00:07:29,920 --> 00:07:34,480

The palm has to go at the end of the barrel of the straw shooter all the way at the back

145

00:07:34,480 --> 00:07:35,480

of the workshop.

146

00:07:35,480 --> 00:07:40,600

I mean, I just foresee just heartache and backache all the way down and all the way back

147

00:07:40,600 --> 00:07:42,000

with this thing.

148

00:07:42,000 --> 00:07:44,400

Adam, you may be psychic.

149

00:07:44,400 --> 00:07:46,360

First things first, we're just going to drag it back.

150

00:07:46,360 --> 00:07:50,760

They put a chain around its massive ball of roots and start to lift it out, but it's

151

00:07:50,760 --> 00:07:53,400

so bottom heavy, it's hard to balance.

152

00:07:53,400 --> 00:07:54,400

Now what do you want to...

153

00:07:54,400 --> 00:07:58,400

You're not hurt, are you?

154

00:07:58,400 --> 00:07:59,400

No, I'm not hurt.

155

00:07:59,400 --> 00:08:00,400

Okay.

156

00:08:00,400 --> 00:08:01,400

Am I clear to my left?

157

00:08:01,400 --> 00:08:02,400

You're in the corridor.

158

00:08:02,400 --> 00:08:03,400

It's beautiful.

159

00:08:03,400 --> 00:08:04,400

You're fine.

160

00:08:04,400 --> 00:08:05,400

You don't have to steer that way.

161

00:08:05,400 --> 00:08:07,400

You can even out.

162

00:08:07,400 --> 00:08:08,400

That's good.

163

00:08:08,400 --> 00:08:12,760

I think you can lower it down.

164

00:08:12,760 --> 00:08:13,760

Touchdown.

165

00:08:14,320 --> 00:08:16,160

My guess is that's going to be perfect.

166

00:08:16,160 --> 00:08:19,920

All we got to do is shave off this a little bit right here, but we're right on target.

167

00:08:19,920 --> 00:08:21,240

It's just beautiful.

168

00:08:21,240 --> 00:08:22,240

It's a palm tree.

169

00:08:22,240 --> 00:08:23,240

It is.

170

00:08:23,240 --> 00:08:24,240

Guns aimed at it.

171

00:08:24,240 --> 00:08:25,240

That's perfect.

172

00:08:25,240 --> 00:08:26,600

Sound the trumpets.

173

00:08:26,600 --> 00:08:31,640

The time has come for the boys to blow wind.

174

00:08:31,640 --> 00:08:34,280

Later straw is said skyrocketing.

175

00:08:34,280 --> 00:08:35,280

What?

176

00:08:35,280 --> 00:08:39,440

But next, the truth sets Grant and Tori free.

177

00:08:39,440 --> 00:08:46,440

Have you ever wanted to make a female robot?

178

00:08:46,440 --> 00:08:52,240

Okay, you guys.

179

00:08:52,240 --> 00:08:59,080

Plants have feelings and has an emotional response to a threatening situation that can

180

00:08:59,080 --> 00:09:02,240

even scream.

181

00:09:02,240 --> 00:09:03,240

Is this a myth?

182

00:09:03,240 --> 00:09:04,240

Yeah.

183

00:09:04,240 --> 00:09:05,240

Have you heard this one?

184

00:09:05,240 --> 00:09:09,520

You know, I do remember there was a guy who took plants and hooked them up to a polygraph

185

00:09:09,520 --> 00:09:11,200

machine and did some tests.

186

00:09:11,200 --> 00:09:15,920

In fact, back in the late 60s and early 70s, he was a world polygraph expert.

187

00:09:15,920 --> 00:09:21,680

He developed this theory that plants, eggs, yogurt, all these things have a way of communicating

188

00:09:21,680 --> 00:09:25,640

on an emotional level that we don't even perceive or understand.

189

00:09:25,640 --> 00:09:30,280

The concept of primary perception may be a little out there for some people.

190

00:09:30,280 --> 00:09:35,840

It means that all living organisms on earth, from a whale, a human being, a plant, right

191

00:09:35,840 --> 00:09:42,160

down to a single cell, is interconnected, able to feel all sorts of emotions and to

192

00:09:42,160 --> 00:09:45,520

communicate with ESP.

193

00:09:45,520 --> 00:09:51,000

The theory was developed by the founder of the FBI's polygraph unit, Cleve Baxter.

194

00:09:51,000 --> 00:09:53,360

I've been reading the experiments of Cleve Baxter.

195

00:09:53,360 --> 00:09:59,480

When he thought about burning the plant, the needle on the polygraph jumped as if the plant

196

00:09:59,480 --> 00:10:01,400

could actually read his mind.

197

00:10:01,400 --> 00:10:06,560

To put his theory to the test, the team is going to recreate some of his original experiments.

198

00:10:06,560 --> 00:10:12,080

First, to see if vegetation really does have feelings, they're going to get a plant, hook

199

00:10:12,080 --> 00:10:20,200

it up to a polygraph, subject it to physical and mental stress, and see if they get a reaction.

200

00:10:20,200 --> 00:10:25,680

Grant heads off to the nursery to get their victims and takes shop assistant Terry along

201

00:10:25,680 --> 00:10:27,400

with some extra muscle.

202

00:10:27,400 --> 00:10:32,880

At the tropical indoor plants from Africa Isle, plant carousel Cindy picks out Dracinas,

203

00:10:32,880 --> 00:10:39,240

the same species used in the original Baxter experiments.

204

00:10:39,240 --> 00:10:42,880

They unload the unsuspecting plants into the trough.

205

00:10:42,880 --> 00:10:45,440

Gentle Grant, keep your thoughts pure.

206

00:10:45,440 --> 00:10:49,280

It's hard when you put a plastic bag over their head.

207

00:10:49,280 --> 00:10:51,240

And Terry is giddy with excitement.

208

00:10:51,240 --> 00:10:59,320

If you could talk to the plants, just imagine it, conversing with an orange carrot.

209

00:10:59,320 --> 00:11:02,680

In fact, he seems a little touched by the sun.

210

00:11:02,680 --> 00:11:05,200

Just imagine it.

211

00:11:05,200 --> 00:11:07,440

What would you say to an onion?

212

00:11:07,440 --> 00:11:09,800

What would you say to a baby carrot?

213

00:11:09,800 --> 00:11:11,720

We will pray for you, Terrence.

214

00:11:11,720 --> 00:11:12,720

We will pray.

215

00:11:12,720 --> 00:11:15,400

I feel closer to the plant kingdom already.

216

00:11:15,400 --> 00:11:20,680

With the plants crossed off the Baxter grocery list, the next item they need has just arrived

217

00:11:20,680 --> 00:11:22,560

at the workshop's special delivery.

218

00:11:22,560 --> 00:11:25,880

Grant, do you know how long we've wanted one of these?

219

00:11:25,880 --> 00:11:26,880

Yes.

220

00:11:26,880 --> 00:11:29,920

And I don't mean a box.

221

00:11:29,920 --> 00:11:33,880

One genuine, stolling 22600.

222

00:11:33,880 --> 00:11:37,000

Oh, I hear something rattling already.

223

00:11:37,000 --> 00:11:42,760

The same model polygraph used in the, you guessed it, original Baxter experiment.

224

00:11:42,760 --> 00:11:45,280

Oh, sweet.

225

00:11:45,280 --> 00:11:49,520

But before they hook up their new plaything to a plant, they have to test it.

226

00:11:49,520 --> 00:11:54,920

What I'm about to do now is prep the machine to hook up to Tori so that we can see if it's

227

00:11:54,920 --> 00:11:55,920

working.

228

00:11:55,920 --> 00:11:57,920

Tori is already breaking a sweat.

229

00:11:57,920 --> 00:11:59,400

Why am I nervous?

230

00:11:59,400 --> 00:12:01,600

This is ridiculous.

231

00:12:01,600 --> 00:12:03,920

Detective Emma Harrah begins.

232

00:12:03,920 --> 00:12:06,640

Do you drive in the state of California?

233

00:12:06,640 --> 00:12:07,640

Yes.

234

00:12:07,640 --> 00:12:09,140

How'd I do?

235

00:12:09,140 --> 00:12:10,140

Did I pass that one?

236

00:12:10,140 --> 00:12:11,140

Okay.

237

00:12:11,140 --> 00:12:14,440

Do you work on a science-based reality show called Mythbusters?

238

00:12:14,440 --> 00:12:18,440

I mean, you can call it work.

239

00:12:18,440 --> 00:12:25,120

Have you ever lied about your age?

240

00:12:25,120 --> 00:12:27,160

Absolutely not.

241

00:12:27,160 --> 00:12:31,160

They check the results and Tori is caught like a rat in a trap.

242

00:12:31,160 --> 00:12:34,400

Number six, have you ever lied about your age?

243

00:12:34,400 --> 00:12:36,560

Your galvanic skin response peaked there.

244

00:12:36,560 --> 00:12:38,320

Well, I said no, right?

245

00:12:38,320 --> 00:12:41,680

Yeah, I said no because I have lied about my age before.

246

00:12:41,680 --> 00:12:42,680

Uh-huh.

247

00:12:42,680 --> 00:12:43,680

Yeah.

248

00:12:43,680 --> 00:12:47,320

The only time I guess I would lie about my age is maybe if I was like in a situation,

249

00:12:47,320 --> 00:12:48,960

let's say like spring break.

250

00:12:48,960 --> 00:12:51,760

Wow, what integrity you have, Tori.

251

00:12:51,760 --> 00:12:53,720

You got some questions?

252

00:12:53,720 --> 00:12:55,480

Burning questions.

253

00:12:55,480 --> 00:13:00,760

To make doubly sure the polygraph is working right, it's Grant's turn to take some heat.

254

00:13:00,760 --> 00:13:04,680

Do you find quantum physics easy for you?

255

00:13:04,680 --> 00:13:06,200

No.

256

00:13:06,200 --> 00:13:11,400

Has your GPA ever dropped below a 4.0?

257

00:13:11,400 --> 00:13:16,720

Yes.

258

00:13:16,720 --> 00:13:25,760

Have you ever made or wanted to make a female robot?

259

00:13:25,760 --> 00:13:28,320

Answer the question, Mr. Imaara.

260

00:13:28,320 --> 00:13:30,720

It's a simple question, Grant.

261

00:13:30,720 --> 00:13:33,760

Uh, no.

262

00:13:33,760 --> 00:13:37,000

Grant says no, but the needle says yes.

263

00:13:37,000 --> 00:13:38,000

Yes.

264

00:13:38,000 --> 00:13:39,000

Yes.

265

00:13:39,000 --> 00:13:45,240

When I asked Grant about whether or not he'd ever wanted to or built a female robot, his,

266

00:13:45,240 --> 00:13:50,240

the needle went off the chart and I'm a little disturbed by that.

267

00:13:50,240 --> 00:13:56,600

So the machine has exposed Tori as being sensitive about his middle age and Grant has a thing

268

00:13:56,600 --> 00:13:58,440

for replicants.

269

00:13:58,440 --> 00:14:02,680

Seems like the polygraph has detected their secrets and lies just fine.

270

00:14:02,680 --> 00:14:05,720

So now they can go ahead and hook it up to a plant.

271

00:14:05,720 --> 00:14:06,720

All right, Grant.

272

00:14:06,720 --> 00:14:12,400

I got our guinea pig.

273

00:14:12,400 --> 00:14:17,480

Like a tropical central, Adam and Jamie are testing if storm force winds can blow a piece

274

00:14:17,480 --> 00:14:20,080

of straw clean through a palm tree.

275

00:14:20,080 --> 00:14:24,280

They've built a giant air shooter and are ready to put it to the test.

276

00:14:24,280 --> 00:14:29,440

A high speed camera is set up to take the action, a chronometer to record the speed

277

00:14:29,440 --> 00:14:31,440

and all is ready to go.

278

00:14:31,440 --> 00:14:33,600

We are set to fire.

279

00:14:33,600 --> 00:14:35,040

Or maybe not.

280

00:14:35,040 --> 00:14:37,280

Jamie has some bad news.

281

00:14:37,280 --> 00:14:38,280

What is up?

282

00:14:38,280 --> 00:14:42,240

Well, we have a bit of a sticky wicket here.

283

00:14:42,240 --> 00:14:48,960

All right, we're being told to pull these palms and we don't want to use them.

284

00:14:48,960 --> 00:14:54,200

According to the higher ups, the palm Adam chose isn't a species that grows in tropical

285

00:14:54,200 --> 00:14:55,700

storm territory.

286

00:14:55,700 --> 00:14:59,920

So they don't want to use it because it wouldn't be a true test of the myth.

287

00:14:59,920 --> 00:15:05,440

So all Adam and Jamie's sweat and toil getting it into the workshop was for nothing.

288

00:15:05,440 --> 00:15:07,720

After all of that, we're yanking that thing.

289

00:15:07,720 --> 00:15:10,720

We're not even going to try and fire into it at all.

290

00:15:10,720 --> 00:15:12,520

Apparently not.

291

00:15:12,520 --> 00:15:16,400

While they're waiting and to blow up some frustration, at least they can do some test

292

00:15:16,400 --> 00:15:22,640

shots to see if the shooter works and can reach 318 miles per hour the world record

293

00:15:22,640 --> 00:15:23,640

wind speed.

294

00:15:23,640 --> 00:15:25,600

Let's fire a cotton ball.

295

00:15:25,600 --> 00:15:28,400

For the practice run, they're using a cotton ball.

296

00:15:28,400 --> 00:15:32,760

All right, now I'm going to go watch this thing exit the barrel, okay?

297

00:15:32,760 --> 00:15:34,000

Okay, charging.

298

00:15:34,000 --> 00:15:40,320

They charge the air compressor up to 80 psi, about half its power and are set to fire.

299

00:15:40,920 --> 00:15:43,600

Three, two, one.

300

00:15:45,600 --> 00:15:47,160

That came out beautifully.

301

00:15:47,160 --> 00:15:49,600

It looked like it was going pretty quick from here.

302

00:15:49,600 --> 00:15:51,200

They check their numbers.

303

00:15:51,200 --> 00:15:57,120

We always knew they were full of wind, but the power and accuracy of their blow is impressive.

304

00:15:57,120 --> 00:15:58,120

That was perfect.

305

00:15:58,120 --> 00:16:00,880

That was 321 miles per hour.

306

00:16:00,880 --> 00:16:05,640

This is off by 1% of the speed we were hoping to hit.

307

00:16:05,960 --> 00:16:07,880

Very first test that we did.

308

00:16:07,880 --> 00:16:12,160

300 miles an hour, give or take.

309

00:16:12,160 --> 00:16:14,760

It's almost like we knew exactly what we were doing.

310

00:16:14,760 --> 00:16:15,840

Breathe, Adam.

311

00:16:15,840 --> 00:16:18,960

They've ordered you a beautiful new tree.

312

00:16:18,960 --> 00:16:22,640

Still to come, Jamie and Adam rock the palm like a hurricane.

313

00:16:22,640 --> 00:16:25,040

I love this job.

314

00:16:25,040 --> 00:16:29,720

But next, things get freaky when the team persecutes plant life.

315

00:16:30,320 --> 00:16:40,200

Primary perception is an open the portals of your mind kind of myth that all forms of

316

00:16:40,200 --> 00:16:44,680

life have feelings and can read minds.

317

00:16:44,680 --> 00:16:50,360

Recreating the experiments of primary perception guru, Cleve Baxter, Grant and Tori are using

318

00:16:50,360 --> 00:16:51,800

a polygraph.

319

00:16:51,800 --> 00:16:57,800

Their first test is going to be on this plant to help block out any accidental electrical

320

00:16:57,800 --> 00:17:03,080

interference that could affect the polygraph like a cell phone going off or a plane flying

321

00:17:03,080 --> 00:17:04,080

overhead.

322

00:17:04,080 --> 00:17:06,720

They're going to conduct the test inside a shipping container.

323

00:17:06,720 --> 00:17:10,840

I'll take it into the container, which we know acts as a really good shield from a radio

324

00:17:10,840 --> 00:17:12,440

frequency interference.

325

00:17:12,440 --> 00:17:18,320

The camera crew, everybody else will be outside, so all that camera equipment is going to be

326

00:17:18,320 --> 00:17:21,320

out there recording us remotely.

327

00:17:21,320 --> 00:17:23,520

Grant and Tori clear their minds.

328

00:17:23,520 --> 00:17:25,120

Let's go to our happy place.

329

00:17:25,120 --> 00:17:26,560

And become one with nature.

330

00:17:28,560 --> 00:17:32,000

There's definitely a little deflection there.

331

00:17:32,000 --> 00:17:36,280

A little slap on the leaf caused the needle on the polygraph to move.

332

00:17:36,280 --> 00:17:40,600

Could it mean the plant is feeling fear and pain?

333

00:17:40,600 --> 00:17:41,600

Plant's kind of twitching.

334

00:17:41,600 --> 00:17:44,400

Because he knows what's coming.

335

00:17:44,400 --> 00:17:49,040

To up the ouch factor, Tori pulls out the heavy artillery.

336

00:17:49,040 --> 00:17:52,720

Oh, huge spike.

337

00:17:52,720 --> 00:17:57,560

The needle moved way more when the strength of the attack was increased.

338

00:17:57,560 --> 00:18:04,360

Each time we hit the plant with the fire extinguisher, the needle pinned.

339

00:18:04,360 --> 00:18:09,240

The boys are baffled, but move on to test if plants can read minds.

340

00:18:09,240 --> 00:18:12,160

This time Tori's not going to touch the plant at all.

341

00:18:12,160 --> 00:18:15,160

He's just going to imagine hurting it.

342

00:18:15,160 --> 00:18:21,440

Think about something specific to this plant, and I want you to really, you have to really

343

00:18:21,440 --> 00:18:22,440

intend to do it.

344

00:18:22,440 --> 00:18:24,160

Like, I am going to do this.

345

00:18:24,160 --> 00:18:25,880

I'm going to kick your butt.

346

00:18:25,880 --> 00:18:26,880

Ready?

347

00:18:26,880 --> 00:18:27,880

Uh-huh.

348

00:18:27,880 --> 00:18:29,880

Had a good baseline?

349

00:18:29,880 --> 00:18:37,400

I gave it a mental picture, sharing it, burning on fire.

350

00:18:37,400 --> 00:18:38,640

The needle jumps.

351

00:18:38,640 --> 00:18:40,640

Are you serious?

352

00:18:40,640 --> 00:18:41,640

Stop.

353

00:18:41,640 --> 00:18:44,640

No way.

354

00:18:44,640 --> 00:18:47,800

Tori had a thought and the plant reacted.

355

00:18:47,800 --> 00:18:51,480

What the heck was that?

356

00:18:51,480 --> 00:18:52,480

I don't know.

357

00:18:52,480 --> 00:18:55,240

Okay, you are not touching the plant.

358

00:18:55,240 --> 00:18:57,800

No, I'm not touching anything.

359

00:18:57,800 --> 00:19:03,160

All I'm doing is I'm staring it down and imagining it in flames.

360

00:19:03,160 --> 00:19:08,760

Is the Dracina tapping into Tori's consciousness and terrified of being burnt?

361

00:19:08,760 --> 00:19:11,080

Okay, that's pretty good.

362

00:19:11,080 --> 00:19:16,080

I mean, I'm not saying I believe this, but yeah, yeah, it's kind of hard to dispute the

363

00:19:16,080 --> 00:19:17,960

ink.

364

00:19:17,960 --> 00:19:22,560

Even engineer Grant, man of science, is taking off his skeptic cap.

365

00:19:22,560 --> 00:19:28,280

If I were to say that it was a random occurrence, there would be some pretty amazing coincidences

366

00:19:28,280 --> 00:19:30,000

going on.

367

00:19:30,000 --> 00:19:32,640

It boggles the mind.

368

00:19:32,640 --> 00:19:37,280

They unboggle themselves enough to decide on their next move.

369

00:19:37,280 --> 00:19:42,560

They got some mind-blowing results, but moving and talking so close to the polygraph may

370

00:19:42,560 --> 00:19:46,200

have been causing vibrations that made the needle move.

371

00:19:46,200 --> 00:19:52,280

This time, they are going to repeat the ESP test, but with themselves outside the container.

372

00:19:52,480 --> 00:20:01,200

Jedi Tori sums up all his powers and shows no mental mercy.

373

00:20:01,200 --> 00:20:02,200

Attack one.

374

00:20:02,200 --> 00:20:04,120

Hard to tell what he's thinking.

375

00:20:04,120 --> 00:20:08,960

He could just be constipated.

376

00:20:08,960 --> 00:20:09,960

Attack two.

377

00:20:09,960 --> 00:20:16,760

Again, no idea, but he's obviously one sick, sick puppy.

378

00:20:16,760 --> 00:20:17,760

Attack three.

379

00:20:17,760 --> 00:20:19,480

Why is he smiling?

380

00:20:19,480 --> 00:20:24,600

He thinks Tori is enjoying this a little too much.

381

00:20:24,600 --> 00:20:25,920

Runs experiment.

382

00:20:25,920 --> 00:20:27,920

I'm trying to keep the plant on its toes.

383

00:20:27,920 --> 00:20:32,720

I didn't want to just give it the same mental attack each time.

384

00:20:32,720 --> 00:20:35,880

Okay, that's 15 minutes.

385

00:20:35,880 --> 00:20:36,880

Okay.

386

00:20:36,880 --> 00:20:41,960

The guys compare notes, and Grant learns a lot about Tori's state of mind.

387

00:20:41,960 --> 00:20:49,240

At minute four to minute four, 45 seconds, I give it an angry attack.

388

00:20:49,240 --> 00:20:51,480

An angry attack is just I'm mad at the plant.

389

00:20:51,480 --> 00:20:53,560

I don't necessarily want to kill it.

390

00:20:53,560 --> 00:20:57,480

Minute five and 30 seconds to six minutes.

391

00:20:57,480 --> 00:21:01,400

I give it an evil attack.

392

00:21:01,400 --> 00:21:03,800

The evil attack, I'm ready to destroy it.

393

00:21:03,800 --> 00:21:07,200

So angry, you're just mad, but you're not going to hurt it?

394

00:21:07,200 --> 00:21:08,360

Well, I'm going to hurt it.

395

00:21:08,360 --> 00:21:11,880

I'm just not going to completely destroy it.

396

00:21:11,880 --> 00:21:16,240

At minute nine to nine thirty.

397

00:21:16,240 --> 00:21:17,240

Okay.

398

00:21:18,240 --> 00:21:20,240

It was a happy attack.

399

00:21:20,240 --> 00:21:22,960

What's a happy attack?

400

00:21:22,960 --> 00:21:30,360

A happy attack is being really nice to the plant, hugging it, putting it in a nice greenhouse,

401

00:21:30,360 --> 00:21:32,440

making it feel wanted.

402

00:21:32,440 --> 00:21:36,560

His methods may have been a little kooky, but Tori meant serious business.

403

00:21:36,560 --> 00:21:40,880

So has his series of inspired attacks made a mark on the paper?

404

00:21:40,880 --> 00:21:42,640

That's inside of the container.

405

00:21:42,640 --> 00:21:47,400

Thirty-five percent of the time, the plant responded to stimuli.

406

00:21:47,400 --> 00:21:51,880

With us outside of the container, twenty-eight percent of the time, the plant responded

407

00:21:51,880 --> 00:21:55,200

to Tori's psychic stimuli.

408

00:21:55,200 --> 00:22:00,160

So there was less needle response with the guys outside the container, but still enough

409

00:22:00,160 --> 00:22:06,160

to keep Baxter's theory that all life is interconnected alive.

410

00:22:06,160 --> 00:22:08,960

This is weird stuff, man.

411

00:22:08,960 --> 00:22:15,080

After revenge is sweet for the plant kingdom, but next, Jamie and Adam finally fire their

412

00:22:15,080 --> 00:22:20,240

subsonic straw.

413

00:22:20,240 --> 00:22:25,120

To test the myth that in a storm, a piece of straw can hit a palm tree trunk so hard it

414

00:22:25,120 --> 00:22:28,560

can come out the other side.

415

00:22:28,560 --> 00:22:31,240

Jamie and Adam only needed three things.

416

00:22:31,240 --> 00:22:32,240

Straw.

417

00:22:32,240 --> 00:22:33,240

Check.

418

00:22:33,240 --> 00:22:34,240

Three.

419

00:22:34,240 --> 00:22:36,360

A computer that can reach record speeds.

420

00:22:36,360 --> 00:22:37,360

Check.

421

00:22:37,360 --> 00:22:39,120

And a palm tree.

422

00:22:39,120 --> 00:22:40,520

Uh-oh.

423

00:22:40,520 --> 00:22:45,480

After setting up a massive three thousand pound palm, the producer got them to pull it

424

00:22:45,480 --> 00:22:46,960

out.

425

00:22:46,960 --> 00:22:51,080

Seems it didn't fit strict myth-busting standards.

426

00:22:51,080 --> 00:22:54,600

When you think of a palm tree, when everybody thinks of a palm tree, they think of a long,

427

00:22:54,600 --> 00:22:57,600

thin trunk with coconuts at the top.

428

00:22:57,600 --> 00:22:59,000

That's called a coconut palm.

429

00:22:59,000 --> 00:23:02,760

What we've got here is the best analog to a coconut palm.

430

00:23:02,760 --> 00:23:03,800

It's a queen palm.

431

00:23:03,800 --> 00:23:09,640

It grows in California, and it is the closest cousin to the coconut palm that we could obtain.

432

00:23:09,640 --> 00:23:15,240

The right species of palm, the right kind of projectile, the right amount of wind.

433

00:23:15,240 --> 00:23:17,520

Ideal straw spitting condition.

434

00:23:17,520 --> 00:23:21,160

So we have built the fastest air gun we have ever built on the show.

435

00:23:21,160 --> 00:23:23,160

It's going precisely the speed we want.

436

00:23:23,160 --> 00:23:25,200

Do you think it's going to work?

437

00:23:25,200 --> 00:23:26,200

I don't know.

438

00:23:26,200 --> 00:23:29,600

There have been studies done using two by fours where they only got them up to around a hundred

439

00:23:29,600 --> 00:23:35,520

miles an hour, and they went through several layers of plywood and even center block walls.

440

00:23:35,520 --> 00:23:39,960

To get something as light as a piece of straw to travel right through and come out the other

441

00:23:39,960 --> 00:23:44,680

side of something as solid as a palm tree, the key could be speed.

442

00:23:44,680 --> 00:23:48,200

The faster an object travels, the more force it has.

443

00:23:48,200 --> 00:23:49,200

That's the theory.

444

00:23:49,200 --> 00:23:50,200

Now to find out.

445

00:23:50,200 --> 00:23:55,160

Now we're going to see what kind of damage real straw does to a palm tree.

446

00:23:55,160 --> 00:23:58,200

The ammo is loaded and wadded with a cotton ball.

447

00:23:58,200 --> 00:24:02,840

The wadding will equalize the air pressure behind the straw as it flies, so it hits the

448

00:24:02,840 --> 00:24:05,080

palm evenly when it comes out.

449

00:24:05,080 --> 00:24:07,280

Ready to go.

450

00:24:07,280 --> 00:24:08,280

Pressurizing.

451

00:24:08,280 --> 00:24:12,160

80, go ahead.

452

00:24:12,160 --> 00:24:16,160

Firing straw in three, two, one.

453

00:24:16,160 --> 00:24:22,200

I love this job.

454

00:24:22,200 --> 00:24:26,860

The straw shoots down the barrel and slams into the trunk, but did it break on through

455

00:24:26,860 --> 00:24:27,860

to the other side.

456

00:24:27,860 --> 00:24:31,360

That one looks really serious.

457

00:24:31,360 --> 00:24:32,360

Dude.

458

00:24:32,360 --> 00:24:34,480

That's a good quarter inch.

459

00:24:34,480 --> 00:24:36,920

That's actually, I'd say that's three-eighths.

460

00:24:36,920 --> 00:24:39,780

Adam, your splitting straws.

461

00:24:39,780 --> 00:24:44,920

The bottom line is the straw didn't make it out, but it did manage to pierce the hard

462

00:24:44,920 --> 00:24:49,000

outer shell of the trunk and embed itself a solid way in.

463

00:24:49,000 --> 00:24:50,280

That would be a result.

464

00:24:50,280 --> 00:24:53,880

That's a result.

465

00:24:53,880 --> 00:24:56,080

Adam checks the airspeed it was traveling at.

466

00:24:56,500 --> 00:25:01,620

Yep, pretty much this looks like we're traveling at right in that butter zone of three hundred

467

00:25:01,620 --> 00:25:04,140

and eighteen, three hundred and twenty miles per hour.

468

00:25:04,140 --> 00:25:06,460

This shot's just beautiful.

469

00:25:06,460 --> 00:25:11,420

It was a great shot, but that means even the highest wind speed ever recorded wasn't

470

00:25:11,420 --> 00:25:14,580

enough force to push the straw through the trunk.

471

00:25:14,580 --> 00:25:21,380

But this myth isn't blown away yet.

472

00:25:21,380 --> 00:25:27,840

To test the myth of primary perception that all life has feelings and the power of ESP,

473

00:25:27,840 --> 00:25:33,400

Grant and Tori hooked a plant to a pothograph, attacked it physically and mentally, and the

474

00:25:33,400 --> 00:25:35,240

plant seemed to react.

475

00:25:35,240 --> 00:25:41,080

Could they be on their way to confirming this out of the ordinary myth?

476

00:25:41,080 --> 00:25:42,800

So how are you guys going with this experiment?

477

00:25:42,800 --> 00:25:46,240

I leave you guys alone for two seconds and you've proven plants have feelings.

478

00:25:46,240 --> 00:25:48,800

Well, I mean, we've been getting some weird results.

479

00:25:48,800 --> 00:25:54,100

There's some kind of correlation between my thoughts in the plant and the polygraph machine.

480

00:25:54,100 --> 00:25:59,820

So what do you guys plan to do to further this kooky experiment?

481

00:25:59,820 --> 00:26:02,660

Ever resourceful Grant's got a plan.

482

00:26:02,660 --> 00:26:08,420

This time the team is going to repeat their plant ESP experiment but swap out the polygraph

483

00:26:08,420 --> 00:26:10,620

with an EEG machine.

484

00:26:10,620 --> 00:26:16,100

An EEG is actually a very sensitive voltmeter and so it uses electrodes connected to the

485

00:26:16,100 --> 00:26:20,320

head to measure any electrical brainwave patterns.

486

00:26:20,320 --> 00:26:23,240

All living cells have electric currents running through them.

487

00:26:23,240 --> 00:26:28,440

Hooking up the dracina to the EEG might give the team more accurate results.

488

00:26:28,440 --> 00:26:32,320

And again, they're following in the footsteps of Cleave Backstreet.

489

00:26:32,320 --> 00:26:37,500

The original series of experiments used an EEG machine and this gives us the opportunity

490

00:26:37,500 --> 00:26:42,520

to see whether it's a real plant phenomenon or whether it's an artifact of the polygraph

491

00:26:42,520 --> 00:26:43,760

machine.

492

00:26:43,760 --> 00:26:50,820

Tari goes to town with his mental calisthenics one more time.

493

00:26:50,820 --> 00:26:52,820

But there's no blip on the screen.

494

00:26:52,820 --> 00:26:55,620

We have big mean thoughts, little mean thoughts.

495

00:26:55,620 --> 00:26:57,120

What were you thinking of?

496

00:26:57,120 --> 00:26:58,120

Big mean thoughts.

497

00:26:58,120 --> 00:27:01,460

I was just imagining tearing that plant apart in different ways.

498

00:27:01,460 --> 00:27:05,180

I would say that that plant's not reacting to you.

499

00:27:05,180 --> 00:27:06,180

No.

500

00:27:06,180 --> 00:27:09,260

The data the team has from plants is conflicting.

501

00:27:09,260 --> 00:27:13,800

And Baxter did plenty of other experiments on different organisms they can try.

502

00:27:13,800 --> 00:27:19,160

They're going to test a popular breakfast item, rich in protein, B vitamins, and most

503

00:27:19,160 --> 00:27:21,160

importantly live bacteria.

504

00:27:21,160 --> 00:27:23,240

We're going to see if yogurt has emotions.

505

00:27:23,240 --> 00:27:28,600

Well, most people get kind of freaked out when they hear that yogurt is a live bacteria.

506

00:27:28,600 --> 00:27:30,040

You heard right.

507

00:27:30,040 --> 00:27:31,040

Emotional acidophilus.

508

00:27:31,040 --> 00:27:32,040

Cool.

509

00:27:32,040 --> 00:27:33,040

Torture yogurt.

510

00:27:33,040 --> 00:27:34,040

All right.

511

00:27:34,420 --> 00:27:39,520

The idea is to take two samples of yogurt from the same tub, leave one in peace, and

512

00:27:39,520 --> 00:27:41,020

persecute the other.

513

00:27:41,020 --> 00:27:45,460

Part of the primary perception theory is that all life is in tune with each other, so the

514

00:27:45,460 --> 00:27:49,940

bacteria should sense that its buddies are being messed with.

515

00:27:49,940 --> 00:27:55,120

They squirt yogurt into test tube one, insert conductive gold wire, and connect it to the

516

00:27:55,120 --> 00:27:57,500

EEG.

517

00:27:57,500 --> 00:28:00,460

They've already learned movement might affect the results.

518

00:28:00,460 --> 00:28:05,200

So to absorb any vibration, they set up test tube two stand on a foam base.

519

00:28:05,200 --> 00:28:07,040

Okay, 10 feet right here.

520

00:28:07,040 --> 00:28:10,640

Upping the aggravation to the max, they pour in boiling water.

521

00:28:10,640 --> 00:28:13,520

I'm going to see if we can stimulate it by making it angry.

522

00:28:13,520 --> 00:28:15,480

Drop it like it's hot.

523

00:28:15,480 --> 00:28:20,640

Nothing happened that time.

524

00:28:20,640 --> 00:28:22,160

No result.

525

00:28:22,160 --> 00:28:27,160

If the death of the bacterium BFFs doesn't get a reaction, what will?

526

00:28:27,160 --> 00:28:28,160

I would love to be wowed.

527

00:28:28,160 --> 00:28:29,800

I would love to have my mind changed.

528

00:28:29,860 --> 00:28:32,860

That's my favorite, but so far I'm not convinced.

529

00:28:32,860 --> 00:28:37,980

Yeah, this test was less than conclusive.

530

00:28:37,980 --> 00:28:43,500

After the break, Jamie and Adam make a major breakthrough.

531

00:28:43,500 --> 00:28:48,100

And it's a vegan's worst nightmare as eggs take a dive.

532

00:28:48,100 --> 00:28:53,700

This thing is bad ass.

533

00:28:53,700 --> 00:28:58,920

And a piece of straw propelled by storm force winds pass through a palm tree trunk.

534

00:28:58,920 --> 00:29:03,360

Well, the mythbusters are a little stuck on this one.

535

00:29:03,360 --> 00:29:06,320

They got a piece of straw to go in, but not out.

536

00:29:06,320 --> 00:29:07,520

That's a good quarter inch.

537

00:29:07,520 --> 00:29:13,440

They've already got their air shooter dialed up to 318 miles per hour, the highest recorded

538

00:29:13,440 --> 00:29:18,580

wind speed in a storm, so they can't change that, but they can change the ammo.

539

00:29:18,580 --> 00:29:22,880

This time, they're going to swap out the straw for a different plant material.

540

00:29:22,880 --> 00:29:23,940

That's thatch'd reed.

541

00:29:23,940 --> 00:29:27,820

Your average person picking up a piece of this on the street and go, oh, look, I found some

542

00:29:27,820 --> 00:29:28,820

straw.

543

00:29:28,820 --> 00:29:33,220

However, it is a little more rigid and may actually provide a lot more penetrating power

544

00:29:33,220 --> 00:29:34,220

than the straw does.

545

00:29:34,220 --> 00:29:35,220

80, go ahead.

546

00:29:35,220 --> 00:29:40,220

All right, firing that street in three, two, one.

547

00:29:40,220 --> 00:29:46,660

Ouch, the reed pierces the trunk like tiny spears.

548

00:29:46,660 --> 00:29:49,780

That right there is pretty serious.

549

00:29:49,780 --> 00:29:53,920

The amount of penetration we're getting from this debris is pretty amazing.

550

00:29:53,920 --> 00:29:59,440

The more rigid reed dug in two inches deeper than the straw, but it still didn't go all

551

00:29:59,440 --> 00:30:00,600

the way through.

552

00:30:00,600 --> 00:30:06,200

I think by the figures we're getting, you need a palm tree that was two inches thick.

553

00:30:06,200 --> 00:30:10,280

Then you could be reasonably sure that one of these might go all the way through it.

554

00:30:10,280 --> 00:30:14,400

If something as strong as reed didn't make it, can anything at all go through a palm

555

00:30:14,400 --> 00:30:15,400

tree trunk?

556

00:30:15,740 --> 00:30:21,300

It's time to bathe things up with some stronger materials and have a little fun in the process.

557

00:30:21,300 --> 00:30:24,580

We can shoot anything that'll fit in the gun.

558

00:30:24,580 --> 00:30:28,180

Piano wire will tickle the boys' ivories.

559

00:30:28,180 --> 00:30:30,500

Straws, you know, that's good to know.

560

00:30:30,500 --> 00:30:32,100

It's what the myth is about.

561

00:30:32,100 --> 00:30:36,620

But if I get this piece of wire to go sailing right through the concrete brick wall in the

562

00:30:36,620 --> 00:30:40,500

back of the shop, that'll be what gets my juices flowing.

563

00:30:40,500 --> 00:30:42,380

Go ahead.

564

00:30:42,380 --> 00:30:43,760

Swing piano wire.

565

00:30:43,760 --> 00:30:45,920

Three, two, one.

566

00:30:48,480 --> 00:30:52,360

You know, that's the first shot we've had that actually sounded like an impact?

567

00:30:52,360 --> 00:30:53,360

Yeah!

568

00:30:53,360 --> 00:30:57,240

To Shay.

569

00:30:57,240 --> 00:31:01,440

Not only did the piano wire slice through the trunk like it was butter, it came out the

570

00:31:01,440 --> 00:31:04,320

other side and kept going.

571

00:31:04,320 --> 00:31:08,080

For the first time, they got something to pass right through the tree.

572

00:31:09,080 --> 00:31:14,220

I don't think it hit the concrete, but let's see.

573

00:31:14,220 --> 00:31:18,060

It did because I can't pull this board off the wall.

574

00:31:18,060 --> 00:31:21,260

Three different objects skewered to perfection.

575

00:31:21,260 --> 00:31:25,380

That is the coolest thing I've ever seen!

576

00:31:25,380 --> 00:31:29,980

Now all they need to do is get the straw to serve up the same thing.

577

00:31:29,980 --> 00:31:39,120

In the meantime, the primary perception myth is that all life, from the highly evolved

578

00:31:39,120 --> 00:31:44,660

to the most simple, is interlinked, aware of what is going on around it and has psychic

579

00:31:44,660 --> 00:31:46,920

powers.

580

00:31:46,920 --> 00:31:53,320

By using a polygraph and EEG machine to detect any vibes, they subjected a plant and live

581

00:31:53,320 --> 00:31:55,720

bacteria to stress.

582

00:31:55,720 --> 00:31:57,040

Nothing happened that time.

583

00:31:57,040 --> 00:32:00,940

The results haven't given them a concrete answer either way, so they're going to try

584

00:32:00,940 --> 00:32:05,340

another experiment, this time with human cells.

585

00:32:05,340 --> 00:32:09,300

White blood cells from Tori's mouth will be put into a test tube.

586

00:32:09,300 --> 00:32:13,820

Gold wire will be inserted into the tube and connected to the EEG.

587

00:32:13,820 --> 00:32:20,140

Then Tori will be tortured to see if his own cells in the tube feel his pain and freak

588

00:32:20,140 --> 00:32:21,140

out.

589

00:32:21,140 --> 00:32:22,700

Tori, did you come over here?

590

00:32:22,700 --> 00:32:23,700

I need to take your leukocytes.

591

00:32:23,700 --> 00:32:26,860

You're not going to use that on me.

592

00:32:26,860 --> 00:32:31,000

It's commonly known as white blood cells live inside the body.

593

00:32:31,000 --> 00:32:34,000

A simple way to catch them is to spit.

594

00:32:34,000 --> 00:32:38,640

Tori harks into test tubes filled with saline solution.

595

00:32:38,640 --> 00:32:49,960

With my mask in your mouth, this is probably a really great audio moment.

596

00:32:49,960 --> 00:32:55,200

Proud of his Italian heritage Tori may be, but his display doesn't exactly rival the

597

00:32:55,220 --> 00:32:57,220

beauty of the Trevi fountain.

598

00:32:57,220 --> 00:32:58,220

Fresh.

599

00:32:58,220 --> 00:33:00,780

I think you have to close your eyes so you don't expect it.

600

00:33:00,780 --> 00:33:06,060

Mistress Carrie is going to inflict physical pain on Tori using a stun gun.

601

00:33:06,060 --> 00:33:08,740

Close your eyes.

602

00:33:08,740 --> 00:33:13,860

Stun guns emit electric currents, so they move Carrie far enough away that when she turns

603

00:33:13,860 --> 00:33:19,940

it on, it won't cause interference on the EEG.

604

00:33:19,940 --> 00:33:20,940

That's pretty good.

605

00:33:20,940 --> 00:33:24,180

Out of range, she's ready to fry her friend.

606

00:33:24,200 --> 00:33:25,960

Do not try this at home.

607

00:33:25,960 --> 00:33:29,040

These devices do hurt bad.

608

00:33:29,040 --> 00:33:34,920

It's worse when you don't know what's coming.

609

00:33:34,920 --> 00:33:36,120

So did you get anything?

610

00:33:36,120 --> 00:33:37,120

Nothing.

611

00:33:37,120 --> 00:33:38,120

No reading whatsoever.

612

00:33:38,120 --> 00:33:39,920

Where do you want it?

613

00:33:39,920 --> 00:33:53,000

Don't put it in any place that would really be bad.

614

00:33:54,000 --> 00:34:01,780

There's barely a flicker on the EEG that indicates the isolated white blood cells sense anything.

615

00:34:01,780 --> 00:34:15,660

With our remote stimulation of Tori, we haven't seen any response.

616

00:34:15,660 --> 00:34:18,300

I think we can safely say this one's busted.

617

00:34:18,300 --> 00:34:19,300

It's busted.

618

00:34:19,300 --> 00:34:22,300

I don't see anything happening.

619

00:34:22,300 --> 00:34:24,000

Right, so we've finished all these experiments.

620

00:34:24,000 --> 00:34:28,720

You guys have fun shocking me, but we still haven't been able to explain those weird results

621

00:34:28,720 --> 00:34:30,560

that we got with the plant and the polygraph.

622

00:34:30,560 --> 00:34:34,800

I think you'll find if we take all of the ways that we learned to isolate our experiment

623

00:34:34,800 --> 00:34:40,760

from outside influences and apply them to this last experiment, we'll get our answer.

624

00:34:40,760 --> 00:34:43,440

The final experiment is a cracker.

625

00:34:43,440 --> 00:34:50,000

This time, the innocent chosen for the sacrifice is the humble egg.

626

00:34:50,000 --> 00:34:55,460

That whips up an intimidating looking metal rig designed to break a bunch of eggs at random

627

00:34:55,460 --> 00:34:58,980

intervals.

628

00:34:58,980 --> 00:35:05,540

This test is to see if one cellular being, a plant, responds when another cellular being,

629

00:35:05,540 --> 00:35:07,500

an egg, is destroyed.

630

00:35:07,500 --> 00:35:12,540

The test has been designed to completely block outside movement, vibration, or electrical

631

00:35:12,540 --> 00:35:16,340

interference from affecting the results.

632

00:35:16,340 --> 00:35:17,620

Here's how it'll go.

633

00:35:17,620 --> 00:35:22,960

The plant will be put on a foam base and connected to the polygraph inside the shipping container.

634

00:35:22,960 --> 00:35:28,000

Grant's egg dropper will be placed outside the cage over a pot of boiling water.

635

00:35:28,000 --> 00:35:32,880

Then the eggs will plummet one by one into the drink.

636

00:35:32,880 --> 00:35:37,120

Okay, once this boils, we'll be ready to go.

637

00:35:37,120 --> 00:35:42,440

No one, not even the eggs, will know when the time comes to meet their maker.

638

00:35:42,440 --> 00:35:47,540

Not only will it choose a random cylinder, but also the time to lay between cylinders

639

00:35:47,540 --> 00:35:53,340

will be random so that the eggs can't anticipate when the next one's going to drop.

640

00:35:53,340 --> 00:35:55,220

The eggs are locked and loaded.

641

00:35:55,220 --> 00:35:59,460

You just need to make an automatic toaster, automatic orange juicer.

642

00:35:59,460 --> 00:36:01,460

You're in business.

643

00:36:01,460 --> 00:36:03,460

Okay, you guys ready?

644

00:36:03,460 --> 00:36:06,140

So once I do this, we have 30 seconds to exit.

645

00:36:06,140 --> 00:36:07,140

Ready?

646

00:36:07,140 --> 00:36:11,780

Three, two, one.

647

00:36:12,080 --> 00:36:13,240

It's all set.

648

00:36:13,240 --> 00:36:18,080

Every single soul, including the crew, exits the building.

649

00:36:18,080 --> 00:36:22,920

Trapped in the wheel of death, the first egg drops.

650

00:36:22,920 --> 00:36:26,320

If the myth is true, the plant should have reacted.

651

00:36:26,320 --> 00:36:29,480

The same when egg two falls.

652

00:36:29,480 --> 00:36:33,600

Omelette anyone?

653

00:36:33,600 --> 00:36:38,240

After 45 minutes, the team comes back inside to check the results.

654

00:36:38,240 --> 00:36:41,160

So we're looking for a jump in the polygraph when the egg drops.

655

00:36:41,740 --> 00:36:46,740

That would be the plant's response to the eggs buying it in the boiling water.

656

00:36:46,740 --> 00:36:49,500

Okay, this first one.

657

00:36:49,500 --> 00:36:53,140

And no reaction on the polygraph.

658

00:36:53,140 --> 00:36:55,660

No screaming, no psychic activity.

659

00:36:55,660 --> 00:37:01,260

Along with the eggs, looks like Baxter's theory of primary perception is broken.

660

00:37:01,260 --> 00:37:02,260

Well, I agree.

661

00:37:02,260 --> 00:37:06,060

I think we did a really good job of isolating all the variables.

662

00:37:06,060 --> 00:37:10,220

Things that might have influenced the original experimenters and given a false positive.

663

00:37:10,280 --> 00:37:13,480

There's vibration, electromagnetic.

664

00:37:13,480 --> 00:37:15,880

Most importantly, we took ourselves out of the equation.

665

00:37:15,880 --> 00:37:20,440

But there was a point where we got some weird results, but we weren't able to repeat it.

666

00:37:20,440 --> 00:37:22,640

And if you can't repeat it, it's not science.

667

00:37:22,640 --> 00:37:24,600

So this one's busted.

668

00:37:24,600 --> 00:37:25,600

Busted.

669

00:37:25,600 --> 00:37:27,120

But I did like shocking you a whole lot.

670

00:37:27,120 --> 00:37:28,840

I know, you guys didn't get to feel it.

671

00:37:28,840 --> 00:37:31,840

I think maybe we should share it.

672

00:37:31,840 --> 00:37:34,840

I thought I took the batteries out of that thing.

673

00:37:34,840 --> 00:37:35,840

I thought you did too.

674

00:37:40,840 --> 00:37:44,720

Coming right up, Jamie and Adam have a theory that is a little bent.

675

00:37:44,720 --> 00:37:47,720

Three, two, one.

676

00:37:47,720 --> 00:37:48,720

Oh man.

677

00:37:48,720 --> 00:37:51,000

And something foul is in the air.

678

00:37:51,000 --> 00:37:53,000

That's disgusting.

679

00:37:55,600 --> 00:38:02,080

At Hurricane HQ, Jamie and Adam prove that while straw cat peers a palm at 318 miles per

680

00:38:02,080 --> 00:38:06,360

hour, piano wire can.

681

00:38:06,360 --> 00:38:11,980

There is a theory that we haven't tested here and it's that in a gale forest, a hurricane

682

00:38:11,980 --> 00:38:18,060

or tornado wind, the tree is actually bending and the bending of the tree actually makes

683

00:38:18,060 --> 00:38:24,620

its pores or makes its material open up and makes it more penetrable.

684

00:38:24,620 --> 00:38:27,660

Palm trees are built to stand up to tropical storms.

685

00:38:27,660 --> 00:38:33,060

Their tall, skinny trunks and lack of branches extending out offer less surface area for

686

00:38:33,060 --> 00:38:34,860

winds to blow on.

687

00:38:35,480 --> 00:38:40,000

Combined with their very flexible trunks allows them to duck and weave more than other

688

00:38:40,000 --> 00:38:41,000

trees.

689

00:38:41,000 --> 00:38:44,360

You're going to have to do this fairly quickly because I'm hurting my shoulder here.

690

00:38:44,360 --> 00:38:46,320

Oh, now you realize it's heavy.

691

00:38:46,320 --> 00:38:51,560

To replicate the stress a palm would be under in a storm, they brace and strap their tree

692

00:38:51,560 --> 00:38:56,360

and bend it back as much as they can without snapping the trunk.

693

00:38:56,360 --> 00:38:59,600

I think that's about the limit of what we're going to get out of this in terms of bending.

694

00:38:59,600 --> 00:39:02,040

Yep, I mean if we crack it we've got to get another one.

695

00:39:02,040 --> 00:39:06,620

They also move the palm closer to the barrel so it's in point blank range.

696

00:39:06,620 --> 00:39:11,300

Maybe the tree isn't too comfortable right about now but these are potentially ideal

697

00:39:11,300 --> 00:39:12,700

conditions for the straw.

698

00:39:12,700 --> 00:39:17,580

We're going to give the straw the best possible chance that we can to do something to this

699

00:39:17,580 --> 00:39:23,660

tree so if it doesn't go through under these absolute maxed out conditions the myth is

700

00:39:23,660 --> 00:39:24,820

totally busted.

701

00:39:24,820 --> 00:39:26,340

The straw is loaded.

702

00:39:26,340 --> 00:39:28,220

Okay, you're ready.

703

00:39:28,220 --> 00:39:35,680

Firing a bent palm in three, two, one.

704

00:39:35,680 --> 00:39:37,280

So what's waiting at the other end?

705

00:39:37,280 --> 00:39:39,880

We only got about a quarter inch.

706

00:39:39,880 --> 00:39:42,760

Yep, there's about a quarter inch.

707

00:39:42,760 --> 00:39:46,220

The straw dug into the trunk about a quarter of an inch.

708

00:39:46,220 --> 00:39:53,440

Even in optimum storm wind conditions it was nowhere close to coming out the other side.

709

00:39:53,440 --> 00:39:58,860

Even with ideal conditions, point blank range with the palm tree bent at the most severe

710

00:39:58,860 --> 00:40:01,820

angle we feel comfortable with without breaking its back.

711

00:40:01,820 --> 00:40:06,460

We get the same results we did with the normal palm tree with the straw from like 50 centimeters

712

00:40:06,460 --> 00:40:07,460

away.

713

00:40:07,460 --> 00:40:12,100

But before calling this myth a bust they still have one more option to try.

714

00:40:12,100 --> 00:40:17,540

I think the only thing left for us to do is to use the thatch reed which is I believe

715

00:40:17,540 --> 00:40:22,140

the strongest thing that we've found that is an organic material that could be mistaken

716

00:40:22,320 --> 00:40:25,760

for a straw.

717

00:40:25,760 --> 00:40:30,480

Because the thatch reed is way more rigid and tougher than straw this time having the

718

00:40:30,480 --> 00:40:35,800

advantage of being fired at point blank range into a bent trunk could make it an unstoppable

719

00:40:35,800 --> 00:40:37,520

force.

720

00:40:37,520 --> 00:40:44,480

Firing thatch reed into the bent palm three, two, one.

721

00:40:44,480 --> 00:40:45,880

So did it work?

722

00:40:45,880 --> 00:40:48,440

They didn't make it out of the barrel.

723

00:40:48,440 --> 00:40:51,480

Nope, it still got stuck.

724

00:40:51,480 --> 00:40:53,380

We did not enhance the effect.

725

00:40:53,380 --> 00:40:55,860

It's about the same as it was getting before.

726

00:40:55,860 --> 00:41:00,540

The point is that bending the trunk and shooting it at the stressed point where the fibers

727

00:41:00,540 --> 00:41:06,100

would presumably be open according to that theory that we found does not have any appreciable

728

00:41:06,100 --> 00:41:08,900

effect on the penetration that we're getting.

729

00:41:08,900 --> 00:41:12,540

So I'd say we can put this one to bed.

730

00:41:12,540 --> 00:41:16,820

So the straw through a palm tree myth is busted.

731

00:41:16,840 --> 00:41:22,800

But before they take their shooter apart, Adam has one more myth he wants to explore.

732

00:41:22,800 --> 00:41:25,160

This one was hatched down on the farm.

733

00:41:25,160 --> 00:41:27,160

Oh man.

734

00:41:27,160 --> 00:41:30,400

The myth is that a hurricane or a tornado can blow all the feathers off a chicken so

735

00:41:30,400 --> 00:41:32,520

we got a feathered chicken there.

736

00:41:32,520 --> 00:41:33,520

That's disgusting.

737

00:41:33,520 --> 00:41:37,440

We're just going to unload the strong air, cover it right at him you see.

738

00:41:37,440 --> 00:41:39,920

Then I figured you could take him home and eat him.

739

00:41:39,920 --> 00:41:42,720

I don't need things that I kill myself.

740

00:41:43,720 --> 00:41:50,500

We got one chicken, we got a strong wind, we have a foul odor.

741

00:41:50,500 --> 00:41:55,700

To really send its feathers flying, you're going for maximum airspeed, ramping up the

742

00:41:55,700 --> 00:41:57,940

PSI all the way.

743

00:41:57,940 --> 00:42:00,900

If this doesn't blow all the feathers off, I don't know what will.

744

00:42:00,900 --> 00:42:04,540

Three, two, one.

745

00:42:08,300 --> 00:42:12,460

But the chicken's feathers are barely ruffled.

746

00:42:12,460 --> 00:42:16,000

This chicken has just as many feathers as when he arrived.

747

00:42:16,000 --> 00:42:21,560

We could not blow the feathers off this chicken with 350, 60 some odd miles per hour of wind.

748

00:42:21,560 --> 00:42:24,680

Well then I guess there's no way a hurricane could.

749

00:42:24,680 --> 00:42:30,320

And besides that, the chicken itself is going to go someplace in 318 mile per hour wind.

750

00:42:30,320 --> 00:42:33,840

Well that is a solid day's work of experimenting.

751

00:42:33,840 --> 00:42:37,560

Straw might actually embed itself in your palm tree, but it is never going to pass all

752

00:42:37,560 --> 00:42:38,560

the way through.

753

00:42:38,700 --> 00:42:40,020

Nope, that's busted.

754

00:42:40,020 --> 00:42:42,820

And it ain't going to blow all the feathers off your chicken either.

755

00:42:42,820 --> 00:42:43,820

No way.

756

00:42:43,820 --> 00:42:45,580

Let's clean this up tomorrow.

757

00:42:45,580 --> 00:42:46,580

Hey, what do you think?

758

00:42:46,580 --> 00:42:49,020

You think we can get that wire to go all the way through an engine block?