



1
00:00:06,680 --> 00:00:03,740
this is a cabbage you got at Trader

2
00:00:09,759 --> 00:00:06,690
Joe's it's organic cabbage and I'm going

3
00:00:12,799 --> 00:00:09,769
to take out off one of the outer leaves

4
00:00:18,680 --> 00:00:12,809
that and we're going to use this for a

5
00:00:22,279 --> 00:00:18,690
little experiment this cabbage is

6
00:00:24,080 --> 00:00:22,289
largely water it's green vegetable and

7
00:00:26,320 --> 00:00:24,090
so it's crunchy because it's got lots of

8
00:00:28,339 --> 00:00:26,330
water and it is quite as strong

9
00:00:31,160 --> 00:00:28,349
vegetable on the end leaves as well so

10
00:00:33,110 --> 00:00:31,170
if I just put it in the fire and take it

11
00:00:35,150 --> 00:00:33,120
away nothing's going to happen because

12
00:00:36,709 --> 00:00:35,160
the so much water content in there

13
00:00:39,110 --> 00:00:36,719

always happening is it's just warming up

14

00:00:45,650 --> 00:00:39,120

the water a little bit I can leave it on

15

00:00:49,010 --> 00:00:45,660

a little bit longer it's kind of getting

16

00:00:50,299 --> 00:00:49,020

a little bit almost hot now you could

17

00:00:52,760 --> 00:00:50,309

leave it on long enough what will happen

18

00:00:54,760 --> 00:00:52,770

is the water inside the cabbage world

19

00:00:58,490 --> 00:00:54,770

will evaporate and you can kind of see

20

00:01:00,290 --> 00:00:58,500

the water starting to burp anyway if I

21

00:01:02,479 --> 00:01:00,300

move it closer to the camera you'll

22

00:01:05,630 --> 00:01:02,489

probably see a little little steam

23

00:01:08,630 --> 00:01:05,640

rising of it let's leave it long enough

24

00:01:17,960 --> 00:01:08,640

so the water in the leaf is actually

25

00:01:20,469 --> 00:01:17,970

boiling takes quite a long time okay I

26

00:01:24,260 --> 00:01:20,479

see you see steam is rising from it now

27

00:01:28,160 --> 00:01:24,270

and eventually what's going to happen is

28

00:01:30,859 --> 00:01:28,170

that so much of the water will be

29

00:01:33,260 --> 00:01:30,869

removed from the cabbage leaf that it is

30

00:01:34,850 --> 00:01:33,270

going to be so dry that it will be able

31

00:01:36,890 --> 00:01:34,860

to catch fire and that's happening

32

00:01:38,450 --> 00:01:36,900

around the edges of the leaf here but

33

00:01:41,569 --> 00:01:38,460

you can see there's still a really large

34

00:01:43,870 --> 00:01:41,579

amount of water coming off this leaf and

35

00:01:46,760 --> 00:01:43,880

I'm going to leave it there long enough

36

00:01:51,109 --> 00:01:46,770

so we can actually get the main part of

37

00:01:54,370 --> 00:01:51,119

the leaf to burn which is taking quite a

38

00:02:00,320 --> 00:01:56,330

so you can see the leg is actually

39

00:02:03,230 --> 00:02:00,330

shrinking away as that's the water had

40

00:02:05,300 --> 00:02:03,240

removed it feels now it's still a little

41

00:02:07,370 --> 00:02:05,310

bit damp but it's very very thin and dry

42

00:02:09,190 --> 00:02:07,380

which is because the waters been removed

43

00:02:16,790 --> 00:02:09,200

most of the leaf as I said is actually

44

00:02:19,460 --> 00:02:16,800

water and let's just finally get it

45

00:02:25,770 --> 00:02:19,470

completely dried out so it is actually

46

00:02:35,130 --> 00:02:29,010

there we go organic cabbage same at any

47

00:02:37,080 --> 00:02:35,140

other cabbage so this video to

48

00:02:40,530 --> 00:02:37,090

demonstrate the effects of water content

49

00:02:43,020 --> 00:02:40,540

on combustion this is just a sheet of

50

00:02:47,220 --> 00:02:43,030

paper which I'm going to tear into two

51
00:02:50,880 --> 00:02:47,230
pieces one piece will be dry and the

52
00:02:53,220 --> 00:02:50,890
other piece will be wet so I've got two

53
00:02:53,760 --> 00:02:53,230
pieces I'll just got one piece here for

54
00:02:56,130 --> 00:02:53,770
now

55
00:03:02,400 --> 00:02:56,140
away from the flame and the other one

56
00:03:04,560 --> 00:03:02,410
I'm going to stick in this water and

57
00:03:05,790 --> 00:03:04,570
then I'll just stick it over here and

58
00:03:07,979 --> 00:03:05,800
now because I'm going to use this water

59
00:03:09,900 --> 00:03:07,989
to put out to this one when I light it

60
00:03:12,380 --> 00:03:09,910
up fire you see if you just take it in

61
00:03:15,840 --> 00:03:12,390
the flame and it instantly likes on fire

62
00:03:20,870 --> 00:03:15,850
very straightforward and obvious and the

63
00:03:30,630 --> 00:03:24,750

nothing happens in fact it's not even

64

00:03:32,610 --> 00:03:30,640

burnt and stick it on the full flame all

65

00:03:34,920 --> 00:03:32,620

that's happening is it's heating up the

66

00:03:36,479 --> 00:03:34,930

water oops that's a little bit of such

67

00:03:39,390 --> 00:03:36,489

that now if we leave it there long

68

00:03:42,990 --> 00:03:39,400

enough what's going to happen is that it

69

00:03:45,090 --> 00:03:43,000

will dry out this portion here which is

70

00:03:46,590 --> 00:03:45,100

over the flame and you can see it

71

00:03:48,990 --> 00:03:46,600

getting dry and eventually that will

72

00:03:52,820 --> 00:03:49,000

catch fire but the rest of it isn't

73

00:03:58,160 --> 00:03:52,830

going to burn because it's actually wet

74

00:04:01,199 --> 00:03:58,170

just the dry portion there is burning so

75

00:04:05,610 --> 00:04:01,209

this portion here is still a little bit

76

00:04:07,140 --> 00:04:05,620

damp and still doesn't burn so that's

77

00:04:09,300 --> 00:04:07,150

the same thing that's happening with the

78

00:04:12,509 --> 00:04:09,310

cabbage experiment is that the water

79

00:04:14,729 --> 00:04:12,519

content of something is what determines

80

00:04:19,080 --> 00:04:14,739

whether it burns or not you see I've got

81

00:04:24,360 --> 00:04:19,090

one half wet and one half dry if I put

82

00:04:26,940 --> 00:04:24,370

that on the dry path catches fire and