



1  
00:00:17,430 --> 00:00:14,950  
the germans call it volchterben

2  
00:00:20,150 --> 00:00:17,440  
meaning death of the forests

3  
00:00:23,109 --> 00:00:20,160  
all over the world large wooded areas

4  
00:00:24,390 --> 00:00:23,119  
once lush and green are now sickly and

5  
00:00:26,150 --> 00:00:24,400  
gray

6  
00:00:28,870 --> 00:00:26,160  
seeking reasons for this dramatic

7  
00:00:31,589 --> 00:00:28,880  
decline scientists including a group

8  
00:00:35,110 --> 00:00:31,599  
from nasa have been studying the problem

9  
00:00:37,110 --> 00:00:35,120  
on camel's hump mountain in vermont

10  
00:00:39,830 --> 00:00:37,120  
this photograph was taken from camel's

11  
00:00:42,150 --> 00:00:39,840  
hump in 1963.

12  
00:00:44,389 --> 00:00:42,160  
here's what this same area looked like

13  
00:00:46,630 --> 00:00:44,399

20 years later

14

00:00:49,350 --> 00:00:46,640

to find out why nasa researchers have

15

00:00:52,150 --> 00:00:49,360

been gathering samples of dying trees on

16

00:00:53,430 --> 00:00:52,160

various parts of the mountain

17

00:00:54,389 --> 00:00:53,440

there you go

18

00:00:57,510 --> 00:00:54,399

yep

19

00:01:00,150 --> 00:00:57,520

yeah look at the fluorosis on this one

20

00:01:02,790 --> 00:01:00,160

these samples bagged and labeled in the

21

00:01:04,710 --> 00:01:02,800

field will later be analyzed in area

22

00:01:06,950 --> 00:01:04,720

laboratories

23

00:01:09,429 --> 00:01:06,960

one theory why forests are dying is

24

00:01:10,550 --> 00:01:09,439

what's popularly referred to as acid

25

00:01:12,310 --> 00:01:10,560

rain

26

00:01:15,190 --> 00:01:12,320

pollutants caused by the burning of

27

00:01:17,270 --> 00:01:15,200

fossil fuels get into the atmosphere

28

00:01:18,310 --> 00:01:17,280

are moved around our planet by air

29

00:01:20,789 --> 00:01:18,320

currents

30

00:01:23,990 --> 00:01:20,799

and fall back to earth in the rain

31

00:01:26,149 --> 00:01:24,000

absorbed by plants and trees

32

00:01:28,469 --> 00:01:26,159

based on their analysis of the samples

33

00:01:31,030 --> 00:01:28,479

collected on camel's home nasa

34

00:01:34,230 --> 00:01:31,040

scientists are not convinced that acid

35

00:01:36,550 --> 00:01:34,240

rain is the sole cause of the problem

36

00:01:40,069 --> 00:01:36,560

but they do think it's a factor

37

00:01:42,310 --> 00:01:40,079

dr barry rock explained some rainfall

38

00:01:44,390 --> 00:01:42,320

measurements on camel's hump have been

39

00:01:46,710 --> 00:01:44,400

just horrendous we're approaching

40

00:01:48,710 --> 00:01:46,720

vinegar we're approaching battery acid

41

00:01:51,429 --> 00:01:48,720

in terms of the acidity

42

00:01:56,630 --> 00:01:51,439

uh certainly that's got to have some

43

00:02:00,389 --> 00:01:58,230

specially equipped

44

00:02:03,109 --> 00:02:00,399

and satellites are also being used in

45

00:02:05,190 --> 00:02:03,119

the investigation to produce imagery of

46

00:02:07,510 --> 00:02:05,200

the study sites

47

00:02:09,350 --> 00:02:07,520

because the health of a plant or tree

48

00:02:12,550 --> 00:02:09,360

determines how it shows up in these

49

00:02:15,350 --> 00:02:12,560

images they provide a very accurate way

50

00:02:17,430 --> 00:02:15,360

of discovering mapping and monitoring

51  
00:02:19,990 --> 00:02:17,440  
damaged areas

52  
00:02:22,470 --> 00:02:20,000  
nasa scientists now plan to use even

53  
00:02:25,270 --> 00:02:22,480  
more advanced airborne instruments to

54  
00:02:28,229 --> 00:02:25,280  
detect the very first stages of forest

55  
00:02:30,790 --> 00:02:28,239  
decline before it becomes obvious

56  
00:02:32,470 --> 00:02:30,800  
then we have some hope of being able to

57  
00:02:35,110 --> 00:02:32,480  
treat the patient before it is

58  
00:02:37,670 --> 00:02:35,120  
terminally ill

59  
00:02:39,990 --> 00:02:37,680  
small vermont sawmills and the worldwide

60  
00:02:42,949 --> 00:02:40,000  
lumber industry in general could soon

61  
00:02:45,270 --> 00:02:42,959  
begin feeling the impact of bolstering

62  
00:02:48,630 --> 00:02:45,280  
but as dr rock points out the problem

63  
00:02:51,030 --> 00:02:48,640

really goes beyond economic concerns

64

00:02:53,190 --> 00:02:51,040

the spruce trees on camel sump and in

65

00:02:56,869 --> 00:02:53,200

the black forest are

66

00:02:59,270 --> 00:02:56,879

very sensitive indicators of stress

67

00:03:01,110 --> 00:02:59,280

and they may well end up being the the

68

00:03:03,190 --> 00:03:01,120

canary in the mine shaft

69

00:03:05,110 --> 00:03:03,200

and since we can't easily get out of our

70

00:03:07,350 --> 00:03:05,120

particular mine shaft we're going to

71

00:03:10,790 --> 00:03:07,360

have to start looking at means of

72

00:03:13,270 --> 00:03:10,800

improving the atmospheric conditions