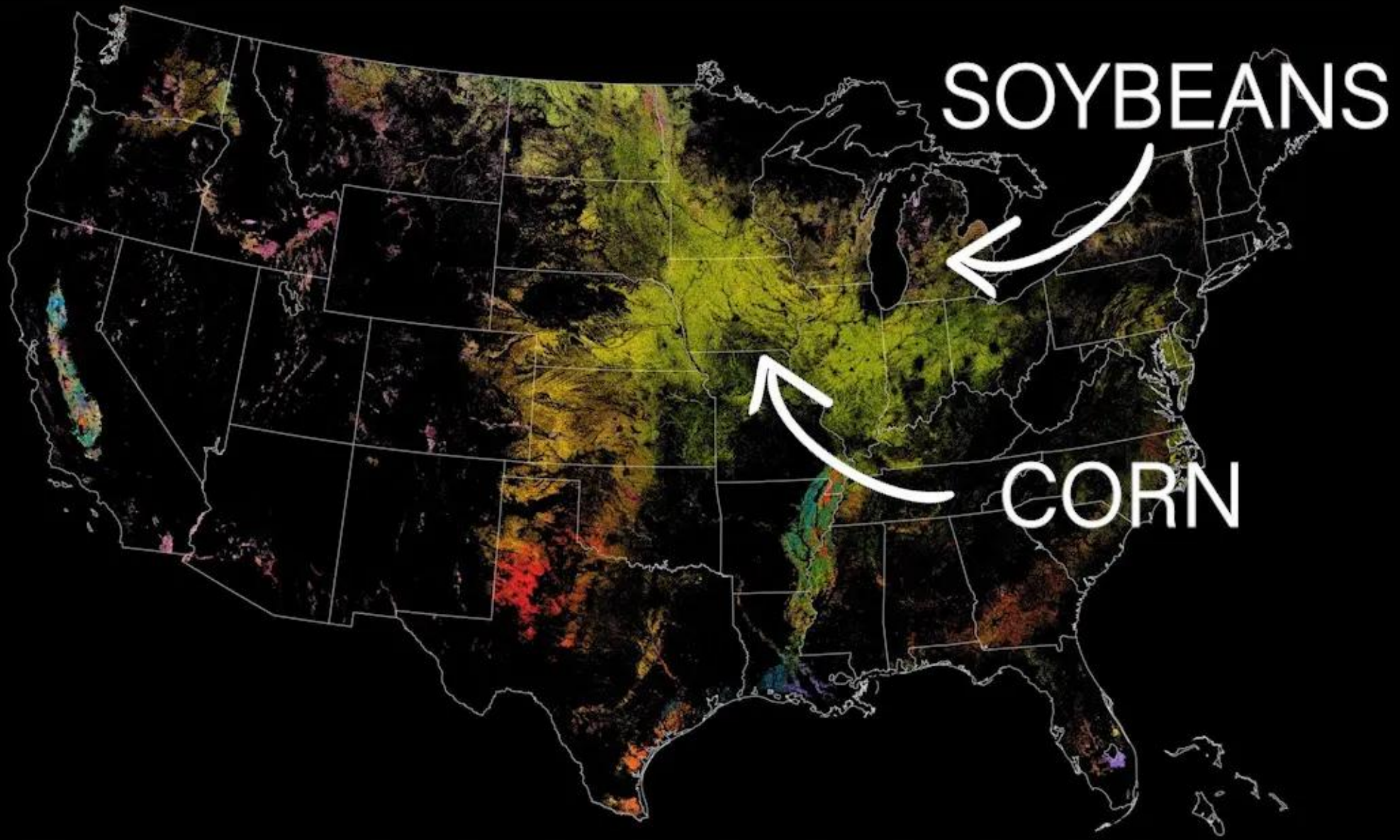
SOYBEANS
CORN

1
00:00:04,150 --> 00:00:02,550
did you know nasa keeps track of food

2
00:00:06,230 --> 00:00:04,160
production from orbit

3
00:00:08,310 --> 00:00:06,240
pioneering scientists of the 1980s

4
00:00:11,190 --> 00:00:08,320
realized that satellites could see

5
00:00:13,190 --> 00:00:11,200
plants growing from space

6
00:00:15,350 --> 00:00:13,200
this monumental discovery occurred when

7
00:00:17,189 --> 00:00:15,360
nasa scientists figured out how to use

8
00:00:19,910 --> 00:00:17,199
satellites to measure chlorophyll in

9
00:00:21,830 --> 00:00:19,920
plants which is reflected as green light

10
00:00:24,390 --> 00:00:21,840
into space

11
00:00:26,790 --> 00:00:24,400
with a flood of new data pouring in nasa

12
00:00:29,109 --> 00:00:26,800
usda and the university of maryland

13
00:00:31,109 --> 00:00:29,119

created an online tool that could track

14
00:00:32,470 --> 00:00:31,119
crop health anywhere in the world in

15
00:00:34,549 --> 00:00:32,480
real time

16
00:00:38,310 --> 00:00:34,559
the team called the inaugural platform

17
00:00:40,150 --> 00:00:38,320
glam global agricultural monitoring

18
00:00:42,470 --> 00:00:40,160
the system has withstood the test of

19
00:00:44,549 --> 00:00:42,480
time and is still in use today

20
00:00:46,310 --> 00:00:44,559
inspired by technological advancements

21
00:00:48,630 --> 00:00:46,320
and increased computing power in recent

22
00:00:50,709 --> 00:00:48,640
years additional global agricultural

23
00:00:53,750 --> 00:00:50,719
monitoring systems have been developed

24
00:00:56,150 --> 00:00:53,760
including nasa harvest's glam ii

25
00:00:59,029 --> 00:00:56,160
here at home when a massive directio hit

26
00:01:01,189 --> 00:00:59,039
the midwest in august of 2020 satellite

27
00:01:02,869 --> 00:01:01,199
data helped analysts to rapidly assess

28
00:01:05,189 --> 00:01:02,879
the damage

29
00:01:07,750 --> 00:01:05,199
this natural disaster caused upwards of

30
00:01:11,270 --> 00:01:07,760
4 billion dollars in damage one of the

31
00:01:13,109 --> 00:01:11,280
costliest windstorms of the past decade

32
00:01:15,429 --> 00:01:13,119
using earth observation data for these

33
00:01:17,270 --> 00:01:15,439
types of damage estimates helps american

34
00:01:20,469 --> 00:01:17,280
and international markets prepare for

35
00:01:22,390 --> 00:01:20,479
potential commodity crop shortages

36
00:01:24,710 --> 00:01:22,400
in the face of more extreme weather due

37
00:01:26,550 --> 00:01:24,720
to our changing climate food security is

38
00:01:28,149 --> 00:01:26,560

one of the most important challenges of

39
00:01:30,230 --> 00:01:28,159
this century

40
00:01:32,950 --> 00:01:30,240
nasa technology is helping keep our

41
00:01:37,640 --> 00:01:32,960
leaders informed our markets stable and