1
00:00:01,230 --> 00:00:04,650
America has always been a fertile land:

2
00:00:04,670 --> 00:00:10,110
grasslands and forests and farms from sea to shining sea.

3
00:00:10,130 --> 00:00:13,910
The U.S. Department of Agriculture tracks how many acres

4
00:00:13,930 --> 00:00:17,990
and the annual yield for every crop produced.

5
00:00:18,010 --> 00:00:22,660
From the big ones like corn, wheat, soy.

6
00:00:22,680 --> 00:00:27,130
To regional crops like cotton, rice, citrus.

7
00:00:27,150 --> 00:00:31,830
They track every year, using data from Landsat satellites and others,

8
00:00:31,850 --> 00:00:36,860
combined with data from surveys on the ground.

9
00:00:36,880 --> 00:00:40,490
Landsat satellites see detail at the human scale,

10
00:00:40,510 --> 00:00:43,300
about the size of a baseball diamond,

11
00:00:43,320 --> 00:00:47,490
and can image individual farm fields.

12
00:00:47,510 --> 00:00:53,290
The program started in 1997,with North Dakota, as an experiment.

13
00:00:53,310 --> 00:00:56,960

Other states became interested and the program grew.

14
00:00:56,980 --> 00:01:00,690
In 2008, Landsat data became free to use

15
00:01:00,710 --> 00:01:05,710
and the USDA could afford to map forty-eight states.

16
00:01:05,730 --> 00:01:09,980
During the growing season the data helps estimate crop yields,

17
00:01:10,000 --> 00:01:14,310
which helps farmers and traders set prices for the harvest.

18
00:01:14,330 --> 00:01:17,320
Thanks to Landsat’s detailed view,

19
00:01:17,340 --> 00:01:20,690
the USDA tabulates stats crop by crop,

20
00:01:20,710 --> 00:01:23,980
county by county, and state by state.

21
00:01:24,000 --> 00:01:25,350
At the end of each year,

22
00:01:25,370 --> 00:01:27,420
the data set is released to the public

23
00:01:27,440 --> 00:01:30,420
and it is a beautiful sight.

24
00:01:30,440 --> 00:01:32,850
The patchwork of corn (in yellow)

25
00:01:32,870 --> 00:01:36,340
and soybeans (in green) in the midwest.

26
00:01:36,360 --> 00:01:40,540
The diversity of crops in California’s central valley.

27
00:01:40,560 --> 00:01:43,370
The clusters of citrus in Florida

28
00:01:43,390 --> 00:01:45,980
and California and Texas.

29
00:01:46,000 --> 00:01:49,510
We can see changes in farming through the years.

30
00:01:49,530 --> 00:01:53,060
The easiest to see is crop rotation in the mid-west,

31
00:01:53,080 --> 00:01:56,340
cycling between corn and soybeans.

32
00:01:56,360 --> 00:01:58,360
In northern North Dakota,

33
00:01:58,380 --> 00:02:00,870
there was a shift from barley and wheat

34
00:02:00,890 --> 00:02:03,270
to soybeans and canola.

35
00:02:03,290 --> 00:02:07,040
And we see an increase in cotton fields (shown in red)

36
00:02:07,060 --> 00:02:10,540
in Texas and Oklahoma.

37
00:02:10,560 --> 00:02:14,390
Thanks to the free and open access to Landsat data,

38
00:02:14,410 --> 00:02:20,060

the US Department of Agriculture is providing our farmers with accurate data