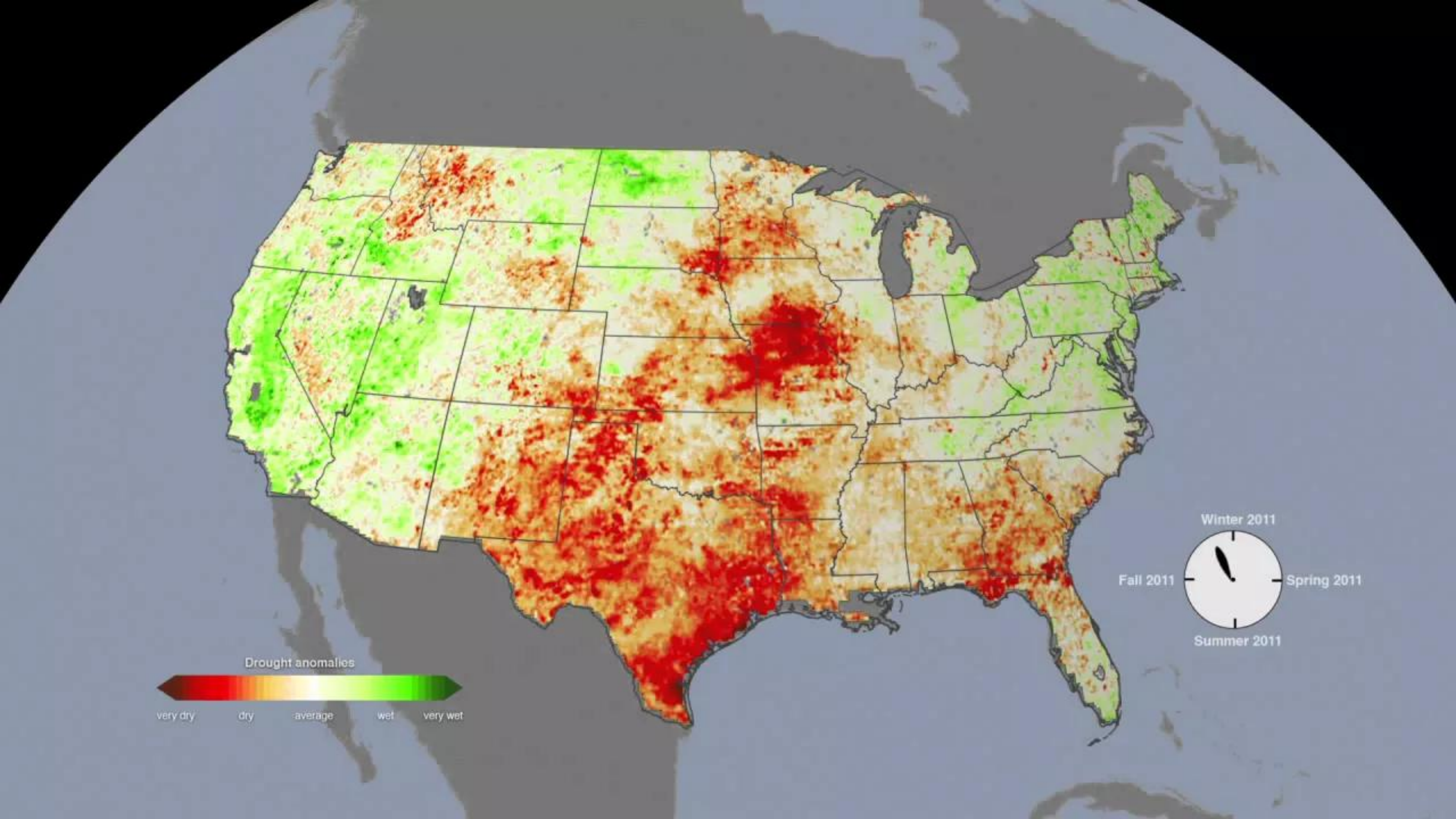
Drought anomalies
very dry
dry
average
wet
very wet
Winter 2011
Spring 2011
Summer 2011
Fall 2011

1
00:00:00,040 --> 00:00:04,020
The Evaporative Stress Index (ESI) provides objective, high-resolution information

2
00:00:04,040 --> 00:00:08,050
about the evaporation of water from landsurface

3
00:00:08,070 --> 00:00:12,120
Overall, 2010 showed higher than average evaporation.

4
00:00:12,140 --> 00:00:16,120
It was a relatively wet year despite occasional pockets of drought.

5
00:00:16,140 --> 00:00:20,170
But in July, as a high pressure system developed over the Atlantic,

6
00:00:20,190 --> 00:00:24,180
the ESI started to pick up signs of plant stress in the South East.

7
00:00:24,200 --> 00:00:28,360
Crops were using less water than they normally do.

8
00:00:28,380 --> 00:00:32,380
Over the Fall, signs of drought worsened and had spread Northward across much of the Eastern

9
00:00:32,400 --> 00:00:36,420
part of the U.S.

10
00:00:36,440 --> 00:00:40,420
The devastating drought that affected Texas in 2011

11
00:00:40,440 --> 00:00:44,420
started in the winter and was impacting farmers and ranchers across the state by April.

12
00:00:44,440 --> 00:00:48,420
Wildfires were common that year and cattle had little to eat.

13
00:00:48,440 --> 00:00:52,430

By the summer of 2011, the ESI shows extremely

14
00:00:52,450 --> 00:00:56,430
dry conditions across all of Texas, Louisiana, and Oklahoma.

15
00:00:56,450 --> 00:01:00,430
More than 10 billion dollars in agricultural losses

16
00:01:00,450 --> 00:01:04,470
for the South were recorded that year.

17
00:01:04,490 --> 00:01:08,670
The la Nina whether pattern which caused these dry conditions and the resulting economic losses

18
00:01:08,690 --> 00:01:12,680
lasted through the end of 2011.

19
00:01:12,700 --> 00:01:16,700
As early as May of this year, the ESI showed plant stress in the Corn Belt region.

20
00:01:16,720 --> 00:01:20,710
The combination of a heat wave and precipitation deficits drove moisture

21
00:01:20,730 --> 00:01:24,890
out of the soil. Corns and soybeans, a stable of the global

22
00:01:24,910 --> 00:01:28,900
food supply, would be severely impacted later in the year.

23
00:01:28,920 --> 00:01:32,920
The ESI picked up on warning indicators a month before The U.S. Drought Monitor.

24
00:01:32,940 --> 00:01:36,940
The kind of early-warning detection system it provides