

Soybean expansion in South America doubled over past 20 years

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A team of researchers affiliated with multiple institutions in the U.S.,

Brazil and Argentina has found that land dedicated to growing soybeans in South America has doubled over the past 20 years. In their paper published in the journal *Nature Sustainability*, the group describes their approach to measuring soy growing areas in South America and what they learned about its impact on land use on the continent.

Soybean plants are a species of legume native to East Asia, but they are now grown as crops around the world. The beans are used for a variety of purposes, from animal feed to oil and tofu. In recent years, demand for the beans has grown steadily, as beef cattle production has increased dramatically in Asian markets. The increased demand has led to the need for land on which to grow the crops. South American farmers have taken advantage of that need by dedicating more land to growing the crop. This growth has worried [climate scientists](#) because prior research has suggested much of that new land comes from tearing down or burning rainforest. In this new effort, the researchers wondered just how much land has been dedicated to growing soy in South America as demand has grown. To find out, they conducted two kinds of studies.

The first study involved analyzing [satellite images](#) taken of the region from 2000 to 2019. The second involved traveling to areas they had identified in the satellite images to make sure they really were soy fields.

The researchers found that [land areas](#) dedicated to growing soy in South America had more than doubled over the past two decades—from 264,000 square kilometers to 551,000. It now covers an area larger than the state of California or the Iberian Peninsula. The researchers also found that most of the land encroachment for soy has been through taking over pasture previously used for raising cattle. As the pasture is depleted, ranchers move to new areas, which means taking down rainforest. They also found that the largest expansion of soy came in Brazil—the country saw an increase in land dedicated to the crop grow by 160%.

More information: Xiao-Peng Song et al, Massive soybean expansion in South America since 2000 and implications for conservation, *Nature Sustainability* (2021). [DOI: 10.1038/s41893-021-00729-z](https://doi.org/10.1038/s41893-021-00729-z)

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