

# Soybean



**HARVESTING SOYBEANS ON PRINCE EDWARD ISLAND,  
CANADA**  
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## Vegetation

Soybean (*Glycine max*) is an annual crop.

## Climate

Soybean is grown across a wide range of climates, including tropical and extra-tropical.

## Distribution

Soybean is grown worldwide.

## Climate regulation value

The average greenhouse gas value for ecosystems of this type is -34 metric tons CO<sub>2</sub>-equivalents per hectare over a 50 year time frame (t CO<sub>2</sub>-eq ha<sup>-1</sup> 50 yrs<sup>-1</sup>). This includes 8 t CO<sub>2</sub>-eq ha<sup>-1</sup> 50 yrs<sup>-1</sup> from storage of organic matter that would result in greenhouse gas release if cleared and -42 t CO<sub>2</sub>-eq ha<sup>-1</sup> 50 yrs<sup>-1</sup> from ongoing greenhouse gas exchange between the ecosystem and the environment.

When biophysical effects are taken into account, the average climate regulation value for ecosystems of this type is 159 metric tons CO<sub>2</sub>-equivalents per hectare (t CO<sub>2</sub>-eq ha<sup>-1</sup> 50 yrs<sup>-1</sup>). This is an increase relative to the value based on greenhouse gas regulation alone.

Considering an average car, emitting 1.1 lb CO<sub>2</sub> per mile driven, maintaining 100 square feet (9.3 m<sup>2</sup>) of this ecosystem type would, on average, be equivalent to driving 64 miles/104 km (counting greenhouse gasses only). Counting biophysical effects, clearing the vegetation would be equivalent to driving 295 miles/475 km.