

Climate change effects on alfalfa studied

April 12 2006

University of Navarra biologist Gorka Erice Soreasu determined alfalfa protects itself from effects of climate change through altering a response to CO₂ levels.

The study, part of Soreasu's doctoral thesis, demonstrates the plant, frequently used as farm animal feed, readily adapts to increases in carbon dioxide, temperature and dryness.

The research reveals alfalfa grows more with elevated CO₂ concentrations, especially when that condition coincides with high temperatures. The effects can be affected by other variables, such as the availability of water in the soil, which would reduce its growth and can modify its response to CO₂.

In addition, the study confirmed the process of photosynthesis can be stimulated or reduced by CO₂, depending on the growth phase of the plant.

The university said the study's results show the great variability of plant response to increases in CO₂. Thus, a greater availability of CO₂, which in principle should stimulate growth through increase photosynthesis, when it interacts with other variables such as the temperature or availability of water, can modify significantly the response of the alfalfa, depending on its stage of growth.

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