



Bioenergy Crops

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- **Bio-energy crops refer to crops that take more than a year to complete its life cycle.** These are used in the production of bio-fuels. These include crops like wheat, maize, oilseeds, sugarcane, eucalyptus, poplar, willow, miscanthus and switchgrass.
- Converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated, according to a new study. Large-scale bioenergy crop cultivation induces a biophysical cooling effect at the global scale, but the air temperature change has strong spatial variations and inter-annual variability.
- Strong cooling effects in Eurasia, between 60°N and 80°N, may protect permafrost from thawing or reduce methane emissions from wetlands. Thus, it can help in reducing global warming.
- The biophysical effects of bioenergy crop cultivation not only alters global temperature directly, but also induces secondary effects on natural greenhouse gases, which should also be taken into account when considering large-scale Bioenergy deployment with carbon capture and storage deployment.