

# *BioFuels*

**...And the Dangers They pose.**



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# What is a BioFuels?



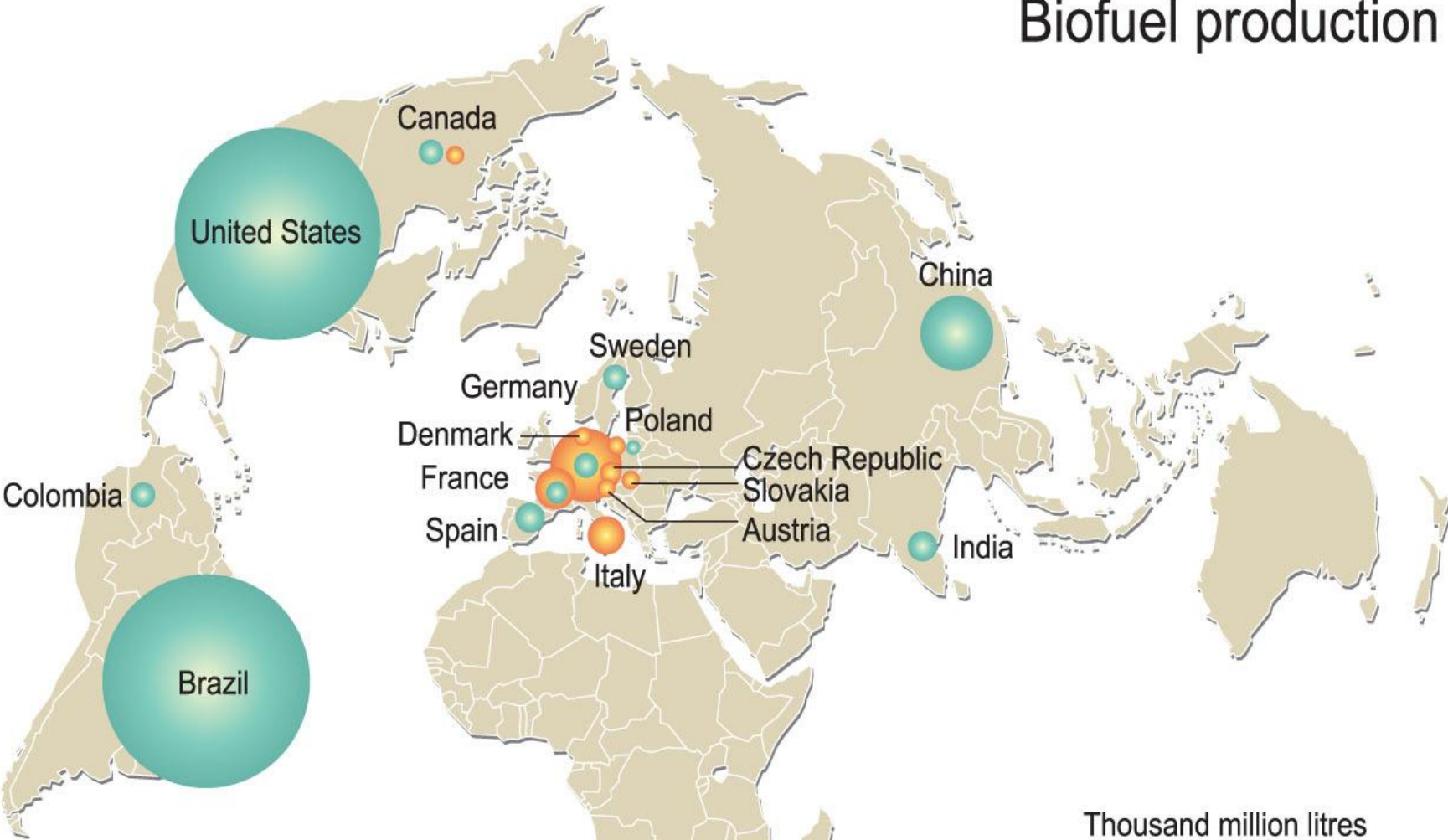
- A BioFuels is a type of fuel that gets its energy from biological carbon fixation. The difference between this type and fossil fuels is that BioFuels comes from recent biological activity compared with fossil fuels which comes from biological activity that is millions of years old.
- BioFuels is not a new concept, the very first cars were originally run on peanut oil
- There are many different types of BioFuels currently available and being developed all over the world, such as; bioethanol, biodiesel, biomethanol, biogas, vegetable oil and solid BioFuels.

# BioFuels Production

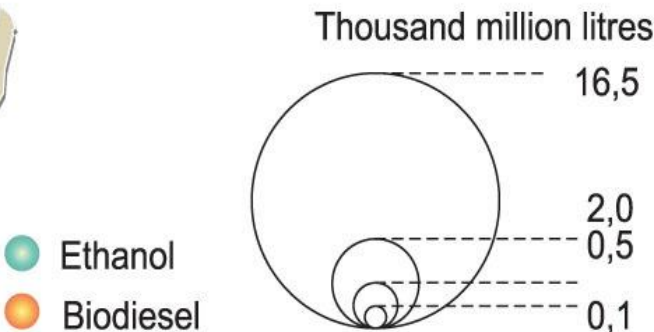
The background of the slide features a stylized sunflower with a yellow center and petals, a large blue water drop, and a faint map of the United States in the upper left corner. The overall theme is green and natural, representing biofuels.

- BioFuels are produced by many numerous methods involving the conversion of biomass into a useable medium such as converting corn into ethanol using fermentation, just like brewing beer.
- World Biofuel production reached an all time high in 2009 with 105 billion liters and the ethanol produced by The United States alone making up 49 billion liters or 47% of global production.
- Ethanol has been used as an additive for the automobile fuel sold here the United States for many years. There are many vehicles with the “flex fuel” badge on them however California only has 52 refueling stations statewide.
- Many Countries are driving towards BioFuels as a replacement for fossil fuels with the United States, Brazil and Europe leading the path for production **and** consumption.

# Biofuel production



Sources: *EarthTrends Environmental Information Portal*, World Resources Institute, 2007 (using *Worldwatch 2006*; US Department of Energy, 2006); *REN21, Renewables 2006 global status report*, Worldwatch Institute; F. O. Licht world ethanol & biofuels report 2005.





# Dangers of BioFuels



- emit 400% more CO<sub>2</sub> than conventional fossil fuels.
- High amount of resources required for production.
- Domestic corn consumption for ethanol has gone from 700 million bushels of corn to over 5 billion bushels of corn since 2000. This in turn has quadrupled corn prices and turned it into a cash crop here and abroad which also reduces our so called food and energy security.
- Today in the United States 40% of our corn production is dedicated to biofuel production
- Rising corn prices has raised the price of dairy, beef, poultry, fish and everything else that relies on corn for feedstock.
- In order to produce Biofuel, energy input is needed at every stage; planting, harvesting, processing and shipping. More energy is needed to produce it than it is worth

# Dangers of BioFuels



- Although the BioFuels are billed as renewable and green, it requires many resources and much energy to reap this fuel. The Bioethanol that is produced here in the United States is created mostly through cellulosic feedstocks such as corn and switchgrass. These crops have the usual production needs such as large swaths of land, fertilizers and harvesting machinery.
- A danger that immediately comes to mind is that our vehicles are competing for our food resources. With thousands of humans starving in the US, we should be feeding our people and not our cars. At what point does it become more economically viable to keep our transportation system for the betterment of the American people alive and working than the actual American people?

# BioFuel Summary



- All the petrol giants are trying to get their hands on the next resource by pushing this biofuel which is more harmful than helpful. Although biofuel production is clever, it is my solemn belief that using our own resources for sustenance and diverting them towards transportation is completely unnecessary and foolish given that we are supplied with an unlimited supply of energy every day from the sun, wind and the ocean.

# References

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