


Heller, 1996

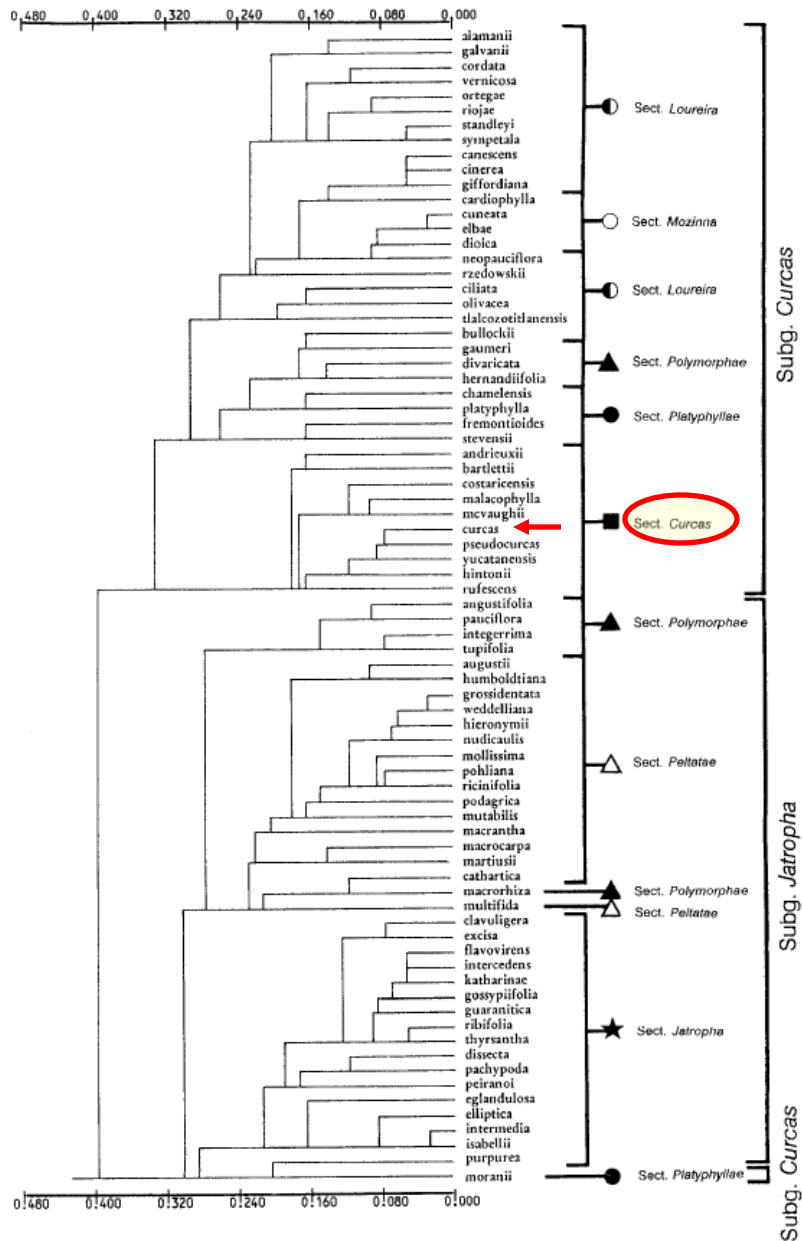
Jatropha as an alternative biofuel: Hope or Hype?

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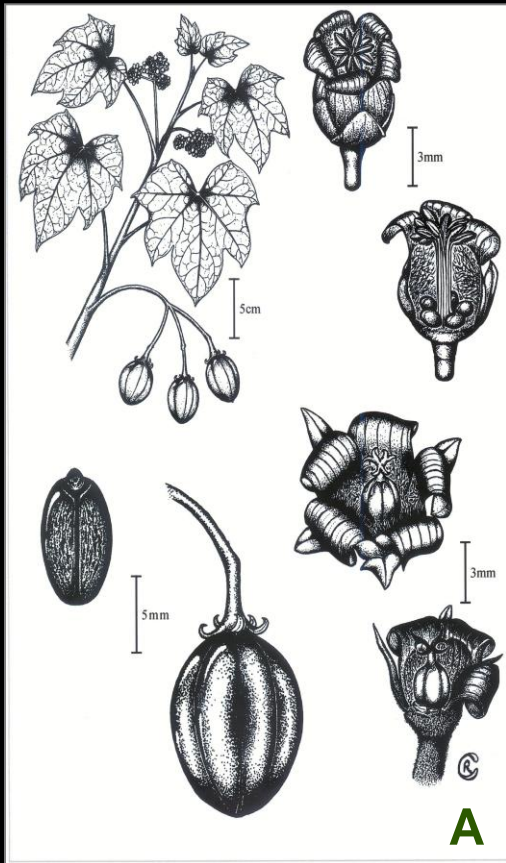
What is Jatropha?

- Family Euphorbiaceae
 - Genus *Jatropha*: 170 species
 - *Jatropha curcas* L.
 - Physic Nut, Barbados Nut, Purging Nut, Curcas Bean
 - Small tree or large shrub, 12-15ft tall
 - Perennial
- 

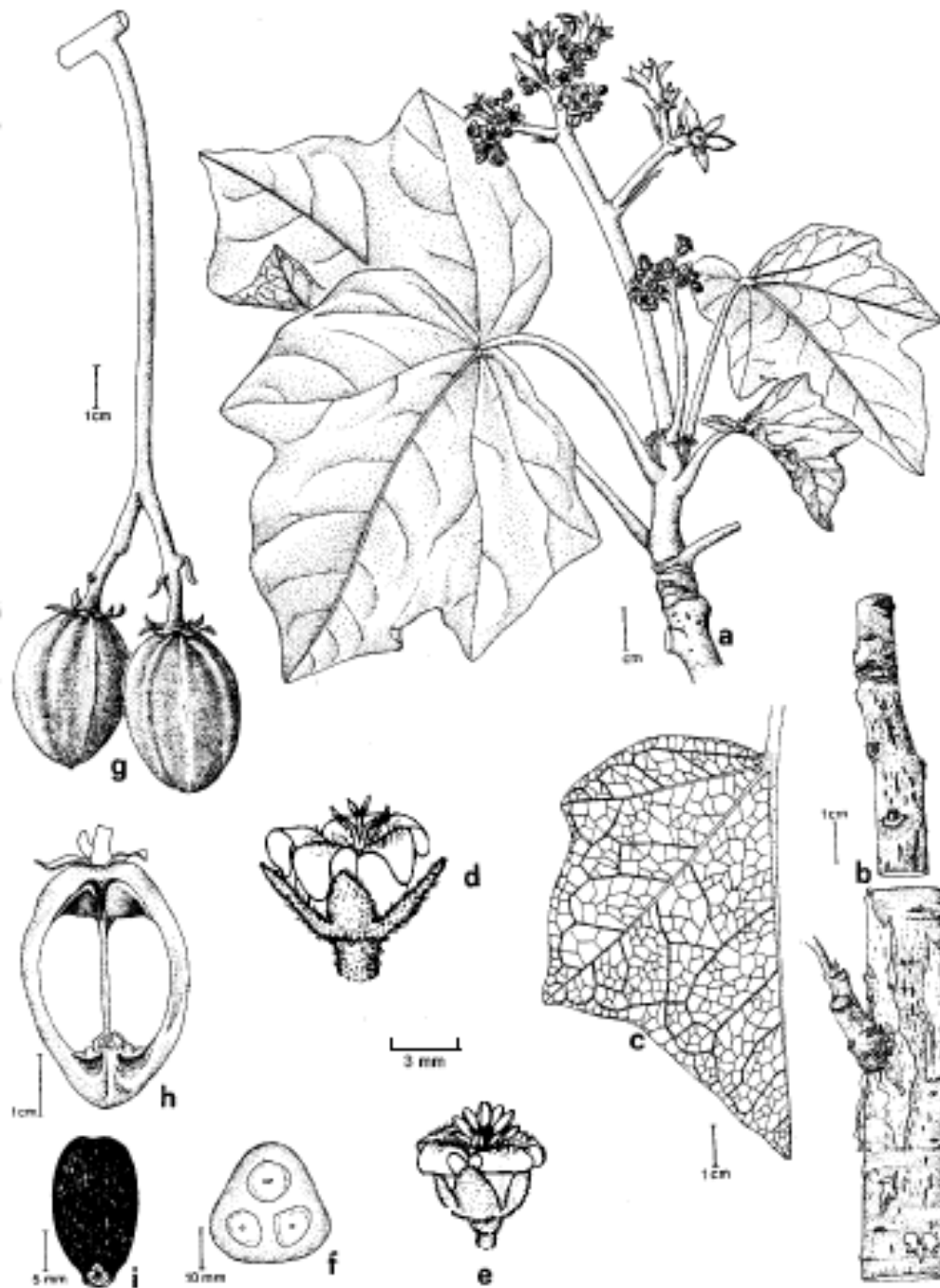


Diversity in the genus *Jatropha*

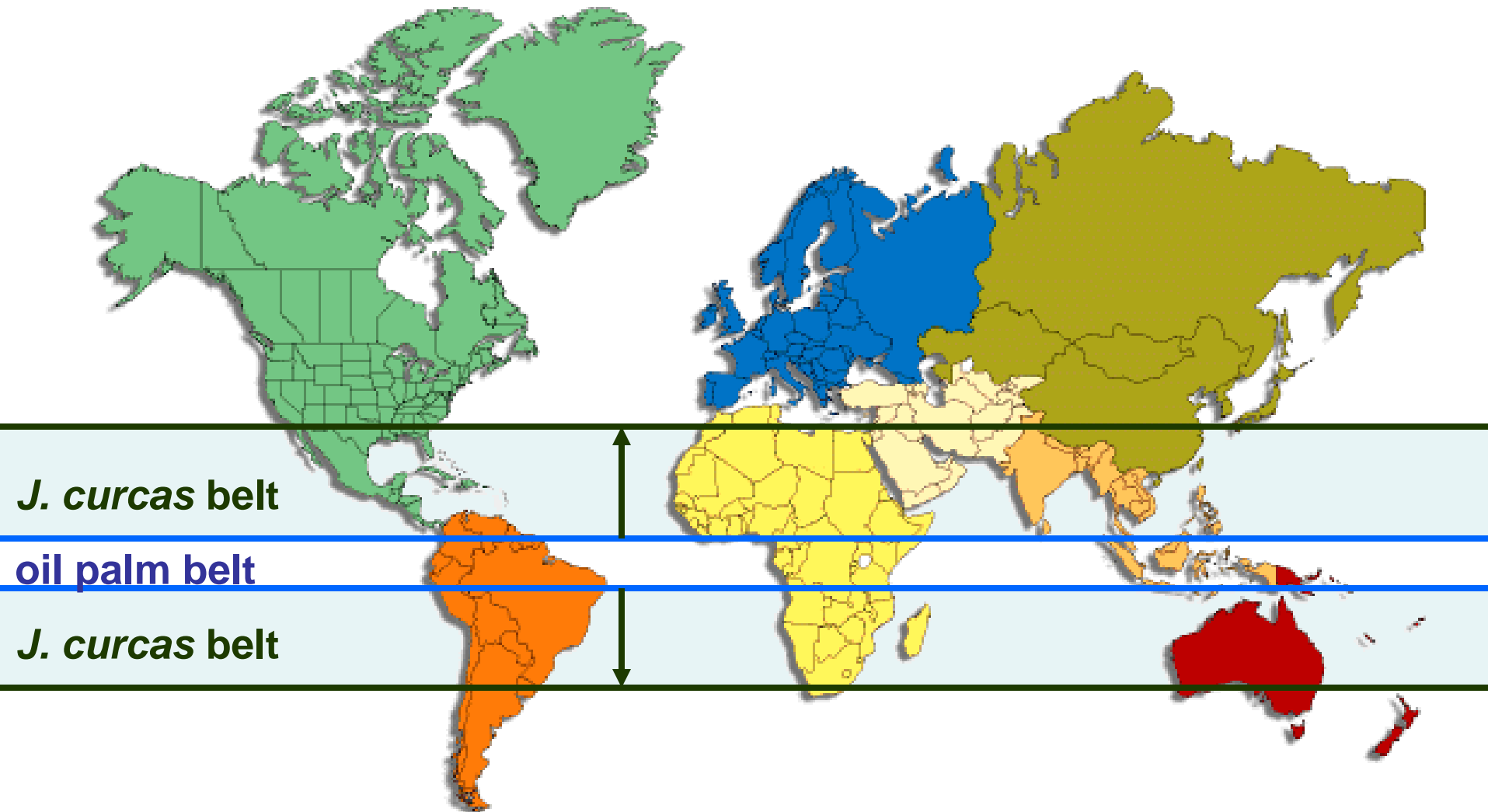
Fig. 1. Phenogramme of 77 Neotropical *Jatropha* species from 32 characters, using F.J. Rohlf's NTSYS-pc programme. Infrageneric designations are from Dehgan and Webster (1979) (reprinted with permission from Dehgan and Schutzmann 1994).



Diversity in the genus *Jatropha*; botanical illustration of *Jatropha curcas* (A); *J. grossidentata* (B), *J. excisa* (C), *J. clavuligera* (D), and *J. weddeliana*. Photos and illustration by B. Dehgan.



- a.** flowering branch
 - b.** bark
 - c.** leaf venation
 - d.** pistillate flower
 - e.** staminate flower
 - f.** cross-section of immature fruit
 - g.** fruits
 - h.** longitudinal section of fruits
 - i.** seed
- (a - c and f- i from Aponte 1978; d and e from Dehgan 1984)
 (reprinted with Permission, Heller 1996)



J. curcas belt

oil palm belt


J. curcas belt

Global indication of the most suitable climates for *J. curcas* (30° N; 35° S)

Claims and Facts on *Jatropha curcas*, (Jongschaap et al., 2007)



Where can it be grown in FL?

- Cultivated in the tropics as living fence
 - Zones 9-11
 - Full sun
 - Drought tolerant
 - Marginal soils
- 



***Jatropha
curcas***
**plantation
in Mexico**





























A

A. Bielenberg ram press for oil extraction from *J. curcas* seeds

B. Soap production from *J. curcas* oil

C. Perkins engine with generator converted to run on *Jatropha* oil

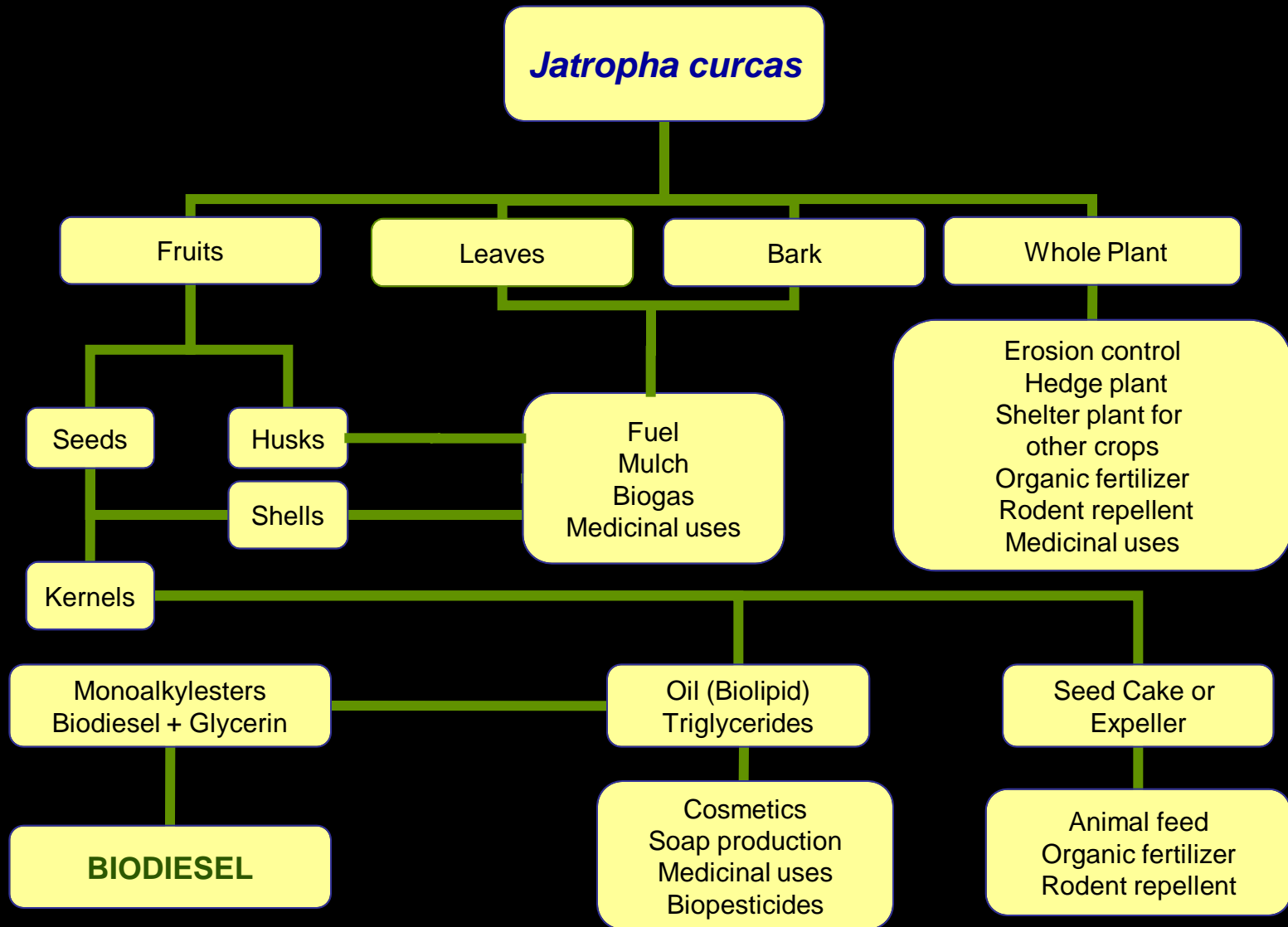


B

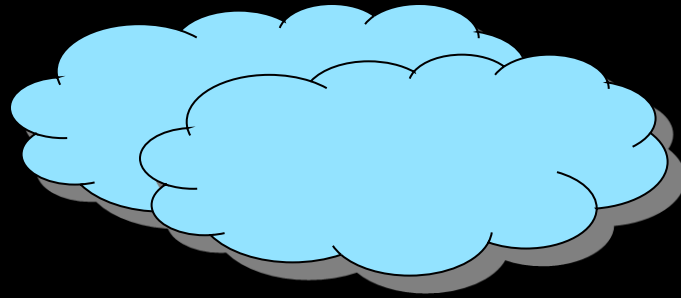


C

Photos courtesy of R. K. Henning



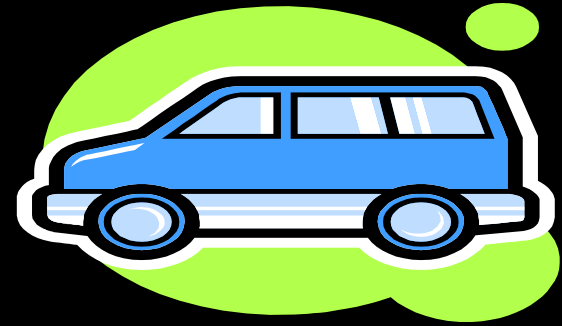
Uses for *Jatropha curcas* (modified from Heller 1996).



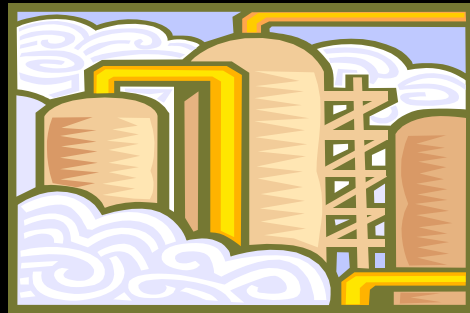
Renewable Energy



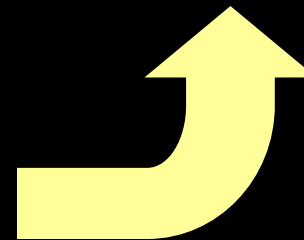
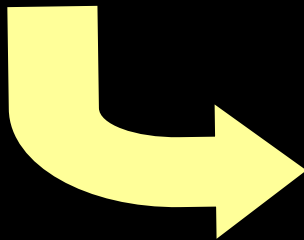
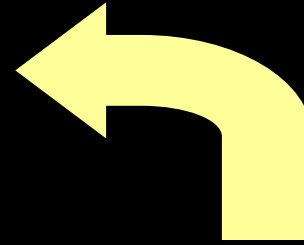
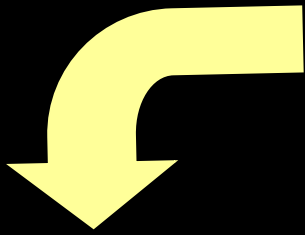
Jatropha Crop



Use in Vehicles



Biofuel Production



Biofuels



Acknowledgements

- CALS – UF
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Florida Department of Agriculture
and Consumer Services

