"Desert Biodiesel" – Southwest Biofuel Production

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Most previous renewable fuel research has focused on plants that are either utilized primarily for human and animal food or are not well adapted to the warmer, dryer climates of the Southwestern U.S. The seven western states of AZ, CO, NM, NV, TX, UT, and WY have over 569 million acres of arid or semiarid lands. The federal government controls 36% of this total area (203 million acres). One technology currently being developed by Texas AgriLife, New Mexico State University, Texas Tech University and USDA-ARS will allow production of very drought tolerant oilseed species such as castor or safflower as biodiesel feedstocks on over 20 million acres of Federal Lands in the Western U.S. Our research which is funded partially by the SunGrant and USDA-ARS Ogallala Aquifer Research Programs includes genetic enhancement of feedstocks, development of production techniques, determination of the ecological impact of drought tolerant annual crop production on marginal soils, and life cycle analysis at each step from field to fuel. If successful, "Desert Biodiesel" could produce 1.6 billion gallons of biodiesel annually. This proven and low capital cost technology would allow selected federal facilities in this region to economically produce a renewable source of high energy, liquid fuel within 48 to 60 months.