

## **The multipurpose energy crop of *Jatropha curcas* L.**

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*Jatropha curcas* L. (JCL) is a perennial shrub or small tree of the Euphorbiaceae family, grown in tropical and sub tropical regions. It is a deciduous or semi deciduous plant which can reach 3 to 5 m in height, can bear fruits for 25-35 years, and has a life-span of more than 50 years. It is a monoecious species with unisexual flowers formed terminally and individually, giving 2 flowering peaks during summer and autumn. Three to four months after flowering, each fruit provides 3 black seeds. The oil content in dry seeds can reach the 35-45 % and it is used as a feedstock for bio-energy (cooking, lighting, cooling, pumping) and bio-diesel production, for soap making, and for medicinal purposes.

The plant is well known for its multiple benefits:

**Ecologically:** JCL is a hard, drought resistant and environmentally friendly crop; it can reclaim marginal and degraded lands without competing with food production.

**Socially:** it is an ideal low-input energy crop for cultivation in low income rural areas of developing countries; the oil can be used as an alternative energy source for rural farmers, providing them self sufficiency in fuels. JCL is also used as a bio-fence and its different parts are used in medicine.

**Economically:** JCL contributes to the promotion of sustainable energy and to the improvement of living conditions and energy security of rural areas. In addition, it can provide income generating activities for women.