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***Crotalaria juncea* as green manure and for nematode population control in Mediterranean vegetable production**

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We will present our results obtained in the framework of the recent European project Legume Futures. We tested the tropical non-crop legume *Crotalaria juncea* for biological control of phytoparasitic root-knot nematode populations and green manure effect in greenhouse tunnel vegetable production in Mediterranean conditions. Results show that *C. juncea* (1) grows rapidly in Mediterranean conditions producing a significant biomass (2) has a very positive green manure effect on lettuce production in both sites and within two successive campaigns (3) significantly reduce on lettuce gall scores. Mycorrhization index and rate of *C. juncea* are significantly higher than that of Ray-grass used as a reference mycorrhizogenous plant. Plants nodulate and natural abundance in ^{15}N show that may be equivalent to about 50 Kg of fixed nitrogen per ha in 3 months.