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## PROCEEDINGS & ABSTRACTS

### ORGANIZIERS

# *LOTUS PEDUNCULATUS* (CV MAKU) SEED PRODUCTION RESPONSE TO IRRIGATION

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This experiment was conducted in 2012 at INIA Treinta y Tres research station (Uruguay), on a second year Lotus Maku stand. The experimental design was a split-plot with three replications. The size of the plots receiving the 8 treatments was 10 x 15m. The objective was to determine Lotus Maku seed production response to different irrigation levels. Treatments consisted of two re-growth periods, called "early" or "late" closing (October 5 or November 9) and four irrigation amounts (0, 15, 30 and 45 mm). Irrigation was applied using a linear pivot. After grazing and mowing were completed (closing), irrigation was applied each time plant available water was depleted in the top 45 mm. Plots receiving 45 mm of irrigation always reached field capacity, while treatments receiving 30 and 15 mm experienced some water deficit. Seed yield and above ground biomass production were evaluated by harvesting six 0.5 x 0.2 m samples from each plot. Above-ground biomass was weighed and harvested seeds were threshed, cleaned and weighed. All variables were evaluated with analysis of variance (LSD). Irrigation increased above-ground biomass production (7129 vs. 5383 kg DM.ha$^{-1}$) and there was no difference between irrigation levels. Also irrigation increased seed yield by 68% (404 vs. 249 kg seed.ha$^{-1}$). There was no difference in seed yield between 30 and 45 mm irrigation treatments. Meanwhile, closing date affected only seed yield in non-irrigated treatments, 198 vs 300 kg seed.ha$^{-1}$ for early and late closing date, respectively. In conclusion irrigation increased seed production and there was no response to different irrigation levels.