

ABSTRACT

EFFECT OF SOURSOP LEAF AND FRUIT PEEL EXTRACTS ON VEGETATIVE GROWTH OF UPRIGHT CHICKPEAS (*Phaseolus vulgaris* L.) UNDER DROUGHT STRESS.

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Upright chickpeas have an upright plant habitus, unlike creeping chickpeas which have a creeping habitus. Chickpeas (*Phaseolus vulgaris* L.) is one of the vegetables that has benefits and is good for health. Efforts are needed to increase chickpea production by improving chickpea cultivation, one of which is by giving antioxidant leaves and soursop fruit peel. This study aims to determine the interaction between antioxidant leaves and soursop fruit peel which has the best effect on drought stress. The experiment was conducted at the Experimental Garden of the Faculty of Agriculture, Siliwangi University Tasikmalaya from February to April 2023. This study used a factorial pattern Randomized Group Design with 2 factors where the first factor was antioxidants consisting of 4 levels (0%, 2% soursop leaf extract, 2% soursop fruit peel extract, 1% soursop fruit peel extract + 1% soursop leaf extract mixture) and the second factor was drought stress consisting of 3 levels (100% field capacity, 60% field capacity and 40% field capacity). The results showed that there was an interaction between the antioxidants of soursop leaf extract and soursop fruit peel with drought stress on plant height. Independently drought stress affects the number of leaves, leaf membrane leakage and root volume.

Keywords: Drought stress, Soursop leaf and fruit peel extracts, Upright chickpea