The Effect of Obtaining Catechin From the Invasive Species Centaurea stoebe on Natural Grass Growth

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Catechin is a chemical by-product of the invasive species spotted knapweed. When secreted by the plant's roots, catechin causes surrounding plants to die. We figured that we could turn this chemical into an herbicide and that we could mix it with a weed killer to outperform that weed killer. Here we show that yes, catechin can be turned into an herbicide. And no, catechin mixed with weed killer does not outperform the weed killer. We found that when compared to water(control) the catechin mixture helps grass grow by a percent change of 24%. Which is more than all of the other mixtures. Another thing we found was that the catechin mixture killed dandelions when compared to the control it has a percent change of -80.79%. Weed killer performed the best compared to the control with a percent change of -90.27%. The catechin and weed killer mixture when compared to the control had a percent change of 86.12%. Our results demonstrate that a catechin mixture kills dandelions making it an herbicide. The results from the ryegrass show that the catechin mixture could also work as a grass fertilizer. Our results also demonstrate that weed killer outperformed our catechin and weed killer mixture when it came to dandelions.

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