

Improvement of Spray Retention on Barley

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Abstract : Adjuvants contribute to change the types of impact and thus the amount of spray retained by the leaves of the treated plant. We have performed tests of retention on barley plants on BBCH 12 stage and small pieces of barley leaves at the same stage of growth. Spraying was done in three ways: water without adjuvant, water with Break-Thru® S240 and water with Li700®. The three slurries of fluorescein contained in an amount of 0.2 g/l. Fluorescein retained by the leaves in both cases is then measured by a spectrofluorometer. The retention tests on whole plants show that it is tripled by the first adjuvant and doubled by the second. By cons on small pieces of barley leaves, the amount was increased by the use of surfactants but not to the same scale. This study concluded that the use of adjuvants in spray pesticides may increase the amount of retention as a function of leaf area and the type of adjuvant.

Keywords : Barley, adjuvant, spray retention, fluorometry

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