

RESISTANCE TO CABBAGE WHITEFLY IN *BRASSICA OLERACEA*

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The cabbage whitefly (*Aleyrodes proletella*) is a phloem-feeding insect that is becoming more and more of a problem in Western Europe. Especially Brussels sprouts, kale and Savoy cabbage can be heavily infested. Besides causing cosmetic damage, whiteflies excrete a sugary substance (honeydew) that allows the growth of sooty mould. Both types of damage reduce the marketability of the crop. The use of pesticides is hazardous to the environment and usually not very effective as whiteflies feed on the underside of leaves. Breeding for resistance would be a sustainable alternative. We have identified a white cabbage (*Brassica oleracea* var. *capitata*) variety with high levels of resistance to the cabbage whitefly and also a variety that is very susceptible to this insect (Broekgaarden et al. 2010, J. Exp. Bot., 61: 807). The resistance is seen both under field conditions and under controlled conditions in the greenhouse, in choice and non-choice experiments. The resistance is dependent on the growth phase of plant, older plants show a higher level of resistance than young plants. Detailed studies on the interaction between plant and insect show that the resistance is most likely phloem based.