Use of oligonucleotides for the control of *Botrytis cinerea* in horticultural crops

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Botrytis cinerea, the causal agent of the gray mold disease, is one of the main limiting factors of horticultural crops production worldwide, consuming up to 40% of fungicides in its control. However, this fungus has been categorized by FRAC (Fungicide Resistance Action Committee) as a phytopathogen with a high risk for fungicide resistance development, a fact that has been demonstrated in our country. In addition, and according to the "farm to fork" strategy of the recent European Green Deal, the diversity of fungicides available to growers will be reduced by 50% in 2030. For this reason, alternative control tools and molecules with fungicide activity are needed to *B. cinerea* control. In this study, the efficacy of emerging strategies using oligonucleotides with antifungal effect has been explored. Preliminary results, obtained in *in vivo* assays, have shown a significantly reduction of the fungal development, demonstrating the potential of these oligonucleotides to be novel candidates to include in the different strategies of integrated control programs of the gray mold disease.

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