Development of a sensor to monitor the thickness of grapevine berry skin

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The necrotrophic fungus *Botrytis cinerea* Pers. which is the anamorph of the ascomycete *Botryotinia fuckeliana* Whetzel affects more than 200 plant species. On grapevine the fungus grows either as grey mold (bunch rot) or as noble rot. Grey mould of grapevines causes huge harvest losses in vineyards. One important objective of the present study is the development of a sensor to determine the thickness of the grapevine berry skin and of the wax layer. A prototype sensor was constructed measuring a specific physical property of berry skin as a potential indicator for *Botrytis* susceptibility. We analyzed seven cultivars during the grape berry ripening and a F1-breeding population at a defined time of ripening. In parallel the *Botrytis* infection and grape cluster architecture was evaluated in the vineyard. Preliminary results indicate a correlation between the measured physical value and thickness of cuticle as well as *Botrytis* susceptibility.