

Comparison of sugar beet responses at different ages to isolates of *Fusarium oxysporum*

Fusarium oxysporum has been reported to cause several diseases of sugar beet, including seedling damping-off, a mature plant wilt (Fusarium yellows), a mature plant root rot, and seed stalk blight. Recent work in our lab and others has shown a great deal of diversity in *F. oxysporum* from sugar beet. We were interested in comparing the response of sugar beet seedlings, 6-week-old plants, and seed stalks to isolates that were originally obtained from different portions of the plant (vascular system or root rot of mature roots versus seed stalk tissue), and belong to different genetic groups based on sequencing of three genetic regions, to determine whether symptom production or infection at different plant stages was associated with different genetic types. Variability was found in the response of beets at the seedling stage as compared to older beets, but response of seed stalks and 6-week-old beets was similar. Isolates from seed stalks caused typical yellows symptoms as well as causing seed stalk blight.

L.E. Hanson, A.L. Hill, and L. Panella. USDA-ARS.