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Evaluation of *Cercospora* leaf spot and post-harvest handling on sugarbeet storage.

In Michigan, sugarbeets (*Beta vulgaris*) are stored for up to 200 days post-harvest, resulting in lower sugar yield due to rot and regular energy use from respiration. *Cercospora* leaf spot (CLS) has been considered a potential predisposing factor for increased storage rot and respiration. Over the past several years, Michigan studies of in-season effects of CLS on post-harvest rot susceptibility and North Dakota studies on respiration and other storage properties did not identify a significant interaction in hand-harvested beets. However, previous research and observations in commercial storage present conflicting evidence of leaf spot impacts on storability. To further investigate the impact of CLS on commercial storage, post-harvest symptom development was evaluated in bruised beets with relatively high or low in-season CLS severity. Bruised and non-bruised tissue of roots of each CLS level were inoculated with *Fusarium graminearum*, *Botrytis cinerea*, or *Penicillium vulpinum* and symptoms assessed after eight weeks. Over two years and six timepoints, CLS level did not significantly impact rot length, width, depth, and volume in bruised beets for the tested pathogens and varieties ($P \geq 0.05$). Despite numerically elevated electrolyte leakage, CLS did not significantly impact relative electrolyte leakage in the two years and four timepoints measured ($P \geq 0.05$). These results indicate CLS did not predispose beets to harvest damage or increased rot from the tested pathogens. Bruise significantly increased total rot volume at all six timepoints across crown and mid-beet impact sites ($P \leq 0.05$), and significantly increased rot depth at five timepoints, width at three timepoints, and length at two timepoints ($P \leq 0.05$). Commercial storage facilities continue to stress the apparent correlation between high CLS and poor storage. Research is continuing to attempt to elucidate the cause of these observations including the effects of CLS on beet physiology and other storage rot pathogens.