While PhotoScan and SURE provided usable results, VisualSfM in combination with PMVS/CMVS2 did not. The distortion of the true geometry of the field in the results provided by VisualSfM with PMVS/ CMVS2 could be caused by the image alignment algorithm used in VisualSfM not being able to deal correctly with this corner case. Another possibility is that the camera self-calibration implemented in PhotoScan performs better than the one from VisualSfM. Regarding noise and point density, the results of PMVS/CMVS2 look promising, but further analysis in the context of this study was impossible due to the incorrect geometry of the generated point cloud.

In summary, this study shows that from the tested software packages, PhotoScan is best suited for crop height monitoring from oblique angles when using a single stereo image pair.

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