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| <b>Input formats</b>                                | .jpg, .tiff, and .png (images)<br>.avi, .wmv, .mov, and .mp4 (videos)  |
| <b>Output formats</b>                               | .txt<br>Images: Canopeo generates a single output file.<br>Videos: Canopeo generates a file with detailed canopy cover information for every frame and a file with summary information. For instance: myvidoutput.txt and myvidoutput_summary.txt  |
| <b>Red/Green<br/>Blue /Green</b>                    | Default value is 0.95. Common range is 0.9 to 1.1.<br>Default value is 0.95. Common range is 0.9 to 1.1.<br>For images with challenging backgrounds (e.g. high amount of crop residue), ratios in the range from 0.9 and 1.0 may be most effective.  |
| <b>Noise reduction</b>                              | Default value is 1. If adjustment is desired, try values of 10, 100, and 1000 to find which order of magnitude comes closest to the desired result. Fine tune as needed.<br>Noise reduction allows exclusion of small clusters of undesired green pixels, such as small weeds.   |
| <b>Trim initial<br/>Trim last<br/>(only videos)</b> | Excludes the $n$ first frames from the analysis.<br>Excludes the $n$ last frames from the analysis.<br>The sum of “Trim initial” and “Trim last” cannot be higher than the total number of frames in the video minus one. The capability to trim frames is useful for excluding undesired frames at the start or end of a video. |
| <b>Step frames<br/>(only videos)</b>                | Skips a given number of frames. This functionality is useful to reduce the number of frames analyzed and facilitate rapid analysis of video files with large number of frames.   |

Use the “Apply settings”, “Next”, and “Previous” buttons to adjust the setting values for selected images or videos before processing a large batch of files.

**Table 1.** Canopeo settings<sup>†</sup> for each image in the image sample set.

| Image <sup>†</sup> | Crop          | Red/Green | Blue/Green | Noise | Fraction canopy cover |
|--------------------|---------------|-----------|------------|-------|-----------------------|
| Figure 3B          | Grain sorghum | 0.95      | 0.95       | 100   | 0.86                  |
| Figure 3D          | Corn          | 0.95      | 0.95       | 100   | 0.74                  |
| Figure 3F          | Wheat         | 0.95      | 0.95       | 100   | 0.65                  |
| Figure 3H          | Canola        | 0.95      | 0.95       | 100   | 0.54                  |
| Figure 4B          | Turf          | 0.95      | 0.95       | 50    | 0.28                  |
| Figure 4D          | Switchgrass   | 0.95      | 0.95       | 50    | 0.17                  |
| Figure 5B          | Sorghum       | 0.96      | 0.96       | 100   | 0.49                  |
| Figure 5D          | Soybean       | 0.96      | 0.96       | 100   | 0.28                  |
| Figure 5F          | Wheat         | 0.96      | 0.96       | 100   | 0.08                  |
| Figure 5H          | Sunflower     | 0.96      | 0.96       | 100   | 0.08                  |

<sup>†</sup>Images are in: sample\_set\_1\_fig3.zip and sample\_set\_2\_fig5.zip available at [soilphysics.okstate.edu/software](http://soilphysics.okstate.edu/software)