








## APPENDIX A – CROP STAGING REFERENCE GUIDE FOR ALFALFA

Staging system used by Northeast Region Certified Crop Adviser to identify growth stages in alfalfa.

 <p>Stage 0: Early vegetative</p>	<p>Stage 0: Early vegetative. Stem length &lt; 6 inches.</p>
 <p>Stage 1: Mid-vegetative</p>	<p>Stage 1: Mid-vegetative. Stem length 6-12 inches.</p>
 <p>Stage 2: Late vegetative</p>	<p>Stage 2: Late vegetative. Stem length &gt; 12 inches (no visible buds).</p>
 <p>Stage 3: Early bud</p>	<p>Stage 3: Early bud. 1-2 nodes with visible buds.</p>
 <p>Stage 4: Late bud</p>	<p>Stage 4: Late bud. &gt; 3 nodes with visible buds.</p>
 <p>Stage 5: Early flower</p>	<p>Stage 5: Early flower. One node with one open flower.</p>
 <p>Stage 6: Late flower</p>	<p>Stage 6: Late flower. &gt; 2 nodes with open flowers.</p>
 <p>Stage 7: Early seed pod</p>	<p>Stage 7: Early seed pod. 1-3 nodes with green seed pods.</p>



Stage 8: Late seed pod. > 4 nodes with green seed pods.



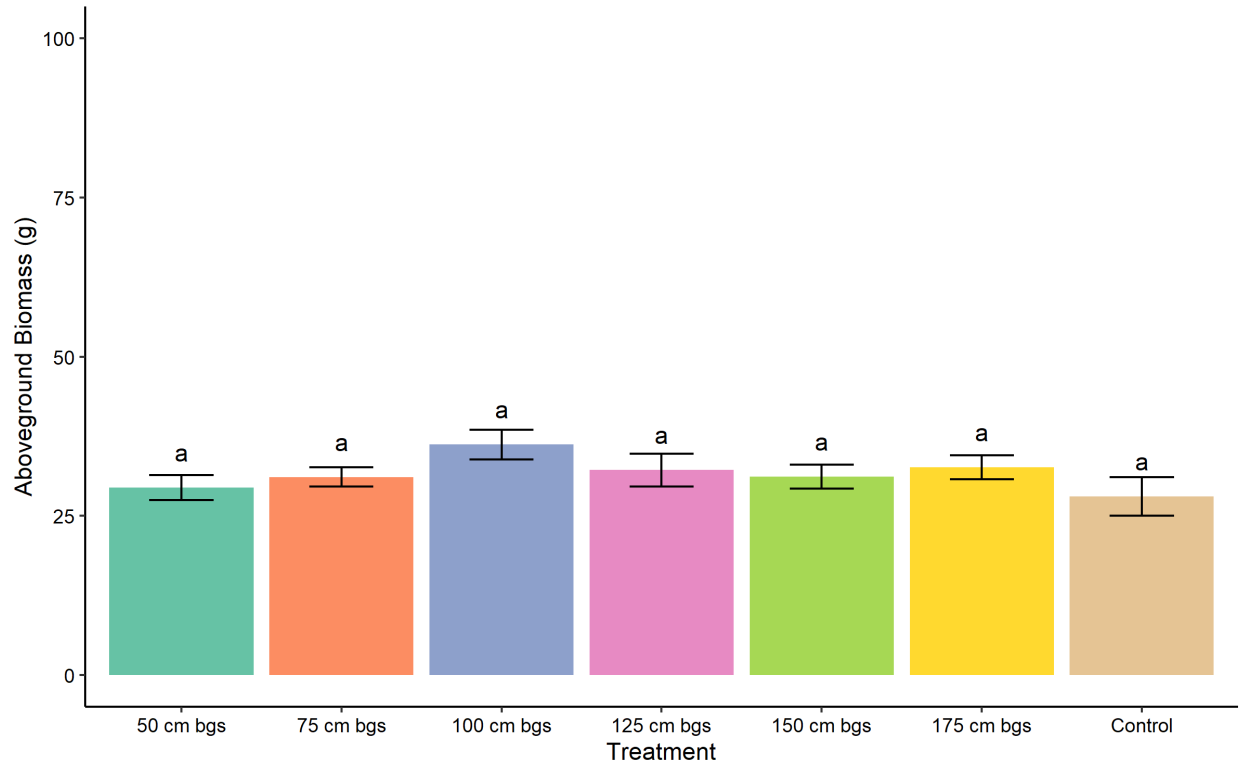
Stage 9: Ripe seed pod.

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## APPENDIX B – 8<sup>TH</sup> ABOVEGROUND BIOMASS HARVEST

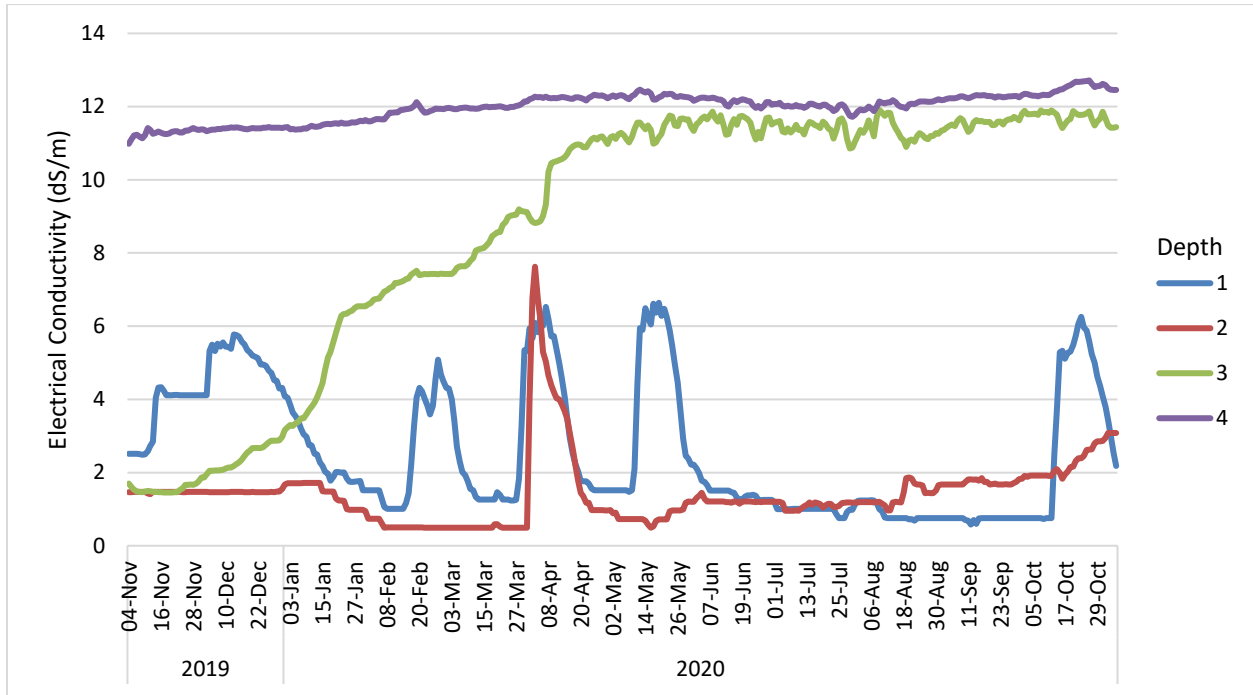
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The aboveground biomass from the eighth plant harvest event was not included in the statistical analysis, however the aboveground biomass data are presented below.



Mean aboveground biomass (g) from the varying salinity depth treatments after the eighth harvest. Bars are means (n=10) with error bars representing the standard error. Different lowercase letters indicate significant differences between the treatments. The treatments refer to the depth at which salt contaminated material is present.

## APPENDIX C – SOIL EC DATALOGGER EXAMPLE



Data logger information for electrical conductivity (EC), in dS/m, is provided in the figure. The data shown were taken from the 75 cm bgs treatment (replicate 1). Time is on the x-axis and EC is on the y-axis. The differently coloured lines represent the different measurement depths. The data were calibrated with an empirically-derived model. Note that for Depth 3, the change in EC early in the experiment is likely associated with a change in moisture content, resulting in initial inaccurate readings. The depth measurements are as follows:

- Depth 1: 25 cm bgs (clean soil)
- Depth 2: 65 cm bgs (10 cm above salinity interface)
- Depth 3: 90 cm bgs (15 cm below salinity interface)
- Depth 4: 150 cm bgs (contaminated soil)

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## APPENDIX D – ROOT DISTRIBUTION AT SALINITY INTERFACES

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Example of root distribution above versus below the salinity interface. The two images on the left represent the 100 cm bgs treatment (replicate 4). The two images on the right represent the 50 cm bgs treatment (replicate 5). Note the horizontal root in the images for the 50 cm bgs treatment (note grid slightly offset to make the horizontal root visible).

