Dear Dr. Weremijewicz,  
  
Your manuscript, JoVE59338 "Investigation of plant interactions across common mycorrhizal networks using rotated cores," has been editorially and peer reviewed, and the following comments need to be addressed. Note that editorial comments address both requirements for video production and formatting of the article for publication. Please track the changes within the manuscript to identify all of the edits.  
  
After revising and uploading your submission, please also upload a separate rebuttal document that addresses each of the editorial and peer review comments individually. Please submit each figure as a vector image file to ensure high resolution throughout production: (.svg, .eps, .ai). If submitting as a .tif or .psd, please ensure that the image is 1920 x 1080 pixels or 300 dpi.  
  
Your revision is due by **Dec 19, 2018**.  
  
To submit a revision, go to the [JoVE submission site](http://www.editorialmanager.com/jove) and log in as an author. You will find your submission under the heading "Submission Needing Revision".  
  
Best,  
  
Bing Wu, Ph.D.  
Review Editor  
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**We would like to thank the editor for the advice and suggestions. We have attached a Word document of the revised manuscript that uses the “track changes” feature in Microsoft word to identify all edits.**

**We have checked each figure, and confirmed that they exceed 1920 x 1080 pixels, which should ensure high quality publication.**

**Please see our responses to all suggestions (shown in blue, below).**

**Editorial comments:**  
Changes to be made by the author(s) regarding the manuscript:  
1. Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues.

We have proofread the manuscript for spelling and grammar.

2. Please obtain explicit copyright permission to reuse any figures from a previous publication. Explicit permission can be expressed in the form of a letter from the editor or a link to the editorial policy that allows re-prints. Please upload this information as a .doc or .docx file to your Editorial Manager account. The Figure must be cited appropriately in the Figure Legend, i.e. “This figure has been modified from [citation].”

Explicit copyright permission has been granted by John Wiley and Sons and uploaded to the account. Each re-used figure has been appropriately cited in its legend.

3. Figure 5A: Please indicate the unit of delta 15N in the figure.

The unit of delta 15N has been added to 5A.

4. Please revise the protocol to contain only action items that direct the reader to do something (e.g., “Do this,” “Ensure that,” etc.). The actions should be described in the imperative tense in complete sentences wherever possible. Avoid usage of phrases such as “could be,” “should be,” and “would be” throughout the Protocol. Any text that cannot be written in the imperative tense may be added as a “Note.” Please include all safety procedures and use of hoods, etc. However, notes should be used sparingly and actions should be described in the imperative tense wherever possible. Please move the discussion about the protocol to the Discussion.

All sentences with the phrase “can be” have been changed to the imperative tense or moved to be “Notes” in the manuscript, and all discussion about the protocol is in the discussion.

5. Please describe Figure 6 and Figure 7 in the Representative Results.

Figures 6 and 7 are now described in the Representative Results sections in lines 377 – 390.

6. Please include single-line spaces between all paragraphs, headings, steps, etc.

The entire document has been modified to include only single-line spaces between paragraphs, heading, steps, etc.

7. After you have made all the recommended changes to your protocol (listed above), please highlight 2.75 pages or less of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol.

We have highlighted 2.75 pages of protocol including headings and spacing.

8. Please highlight complete sentences (not parts of sentences). Please ensure that the highlighted part of the step includes at least one action that is written in imperative tense.

All steps that have been highlighted are complete sentences and are in the imperative tense.

9. Please include all relevant details that are required to perform the step in the highlighting. For example: If step 2.5 is highlighted for filming and the details of how to perform the step are given in steps 2.5.1 and 2.5.2, then the sub-steps where the details are provided must be highlighted.

Done.

10. Table of Materials: Please sort the items in alphabetical order according to the name of material/equipment.  
We have sorted all materials in alphabetical order.

**Reviewers' comments:**  
**Reviewer #1:**  
Manuscript Summary:  
The manuscript describes a method to modify and arrange core tubes for plant growth, in order to make experiments on the effect of common mycelium network (CMN) on plant physiology and growth. The method allow the generation of an intact CMN, a challenged CMN (by rotating the cores) and absence of CMN (by using closed, unmodified cores), simultaneously in microcosm- or mesocosm-experiments.  
  
Major Concerns:  
I have no major concerns.  
  
Minor Concerns:  
Consider to replace the term "to severe" with the term "to challenge", which is more conventionally used in plant microbiology works (for example, at lines 38-40 "CMNs are left either intact between interacting individuals, CHALLENGED by rotation of containers, or prevented from forming by a solid barrier.").  
We thank Reviewer #1 for the suggestion. After careful consideration, we have decided that the term “to challenge” may be potentially misleading to our audience because of its generality. “To challenge” may mean that the common mycorrhizal networks were treated with fungicide, or other stressors, while “to sever” explicitly states the action of the treatment. Another potential issue with “to challenge” is that it may mislead readers into assuming that the common mycorrhizal network was the focus of our work, because in the literature the individuals that are challenged with a fungal pathogen for example, are the subjects of the work. In our work, although the common mycorrhizal networks are severed, we investigated the effects of severing CMNs on plant nutrition and interactions.

**Reviewer #2:**   
Manuscript Summary:  
The manuscript describes a method to investigate the influence of common mycorrhizal networks on plant growth and plant interactions. The authors propose a relative simple method using rotated cores to disrupt mycorrhizal networks within the context given soil conditions. Plants growing with intact mycorrhizal networks, with disturbed networks by rotating cores or in conditions with completely prevented networks were compared. Rotation of the containers was sufficient to disrupt the mycorrhizal networks thus preventing plant interactions. The presented method is useful to investigate the functioning of plant - mycorrhizal networks in a given ecosystem by mimicking natural conditions. The authors combined this method with 15N tracer measurements between interacting plants and plant growth. The protocol describes in detail fabrication of the tools and the experimental setup. Representative results for a prairie grass demonstrate the efficient application of the described method. Figures illustrate the method and the results. The manuscript is well written and presents not only the method but also the scientific contexte and results of one example.

Minor Concerns:  
(1) The two results illustrated by Figures 6 and 7 could have been mentioned also within the results part.

We thank Reviewer #2 for the suggestion, and have cited Figures 6 and 7 in the representative results in lines 377 – 390.