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September 12, 2012

Nandita Singh
Senior Science Editor, Journal of Visualized Experiments

Dear Ms. Singh,

I'm writing to submit for your review our article, "Isolation of native soil microorganisms with potential for breaking down biodegradable plastic films used in agriculture." This paper describes a compilation of methods that we collected, optimized, and/or invented for the isolation of bacterial and fungi that degrade plastic films. Our main goal was the isolation and characterization of soil microorganisms capable of degrading films marketed as "biodegradable" or "compostable", for use in agriculture. However, these methodologies are useful to researchers further afield than the agricultural sciences. Biodegradable plastic are currently widespread in uses from garbage bags to food wraps, and our methods could be easily adapted for isolation of microbial degraders of any film or thin sheet of plastic product.

Because many researchers interested in biodegradable plastics (e.g. engineers, materials scientists, and chemists) are not trained as microbiologists, it will be useful for them to watch our techniques in video format. Moreover, our methods are unique enough that we feel that a video describing their implementation will leave the potential end user with much more confidence and clarity prior to starting their own experiments.

Author contributions are as follows:

Marion Brodhagen was the lead author and principle investigator and initiated and oversaw all aspects of this work. Graham Bailes, Margaret Lind, Andrew Ely, and Marianne Powell performed the laboratory experiments and offered many suggestions for method optimization. Margaret Lind and Marianne Powell wrote original drafts of the some of the methods. Jennifer Moore-Kucera, Carol Miles, and Debra Inglis devised field methods for burying plastics in nylon mesh bags, and determined appropriate sampling times and handling methods. All authors contributed to the writing of this manuscript.

I suggest the following individuals as potential peer reviewers; if they do not have time to do the review they will likely be able to suggest other appropriate individuals. They are listed in the order I predict for willingness/time to review.

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Thank you in advance for considering our article for inclusion in your journal!

Sincerely,

Marion Brodhagen