

THE VIRGINIA RAINFALL SIMULATOR & SOIL QUALITY DEMONSTRATION PROJECT

OVERVIEW & CALL FOR INPUT

1. The GOOD NEWS: We Have The Tools

USDA-NRCS in Virginia recently acquired a set of innovative soil conservation and soil quality demonstration tools. At more than a dozen events over the past eight months, we have shown that these compact, portable tools have *great potential* for capturing the attention of farmers and building interest in our message of *improved soil management and conservation*. These tools also have wide potential applicability to a range of other clients, including youth and non-farmer audiences.

Our tools include:

- a. A miniature *rainfall simulator* illustrating runoff, infiltration, and erosion processes in two ways:
 - By raining onto elevated soil trays (standard setup);
 - By raining onto the soil surface (in-situ setup);
- b. A tabletop *wind erosion* demonstration unit;
- c. A simple but effective tabletop *soil quality* demo;
- d. A 42-inch-deep, clear-sided *root-viewing box* for observing subsurface soil biological activity.

2. The BAD NEWS: We Lack The Time

NRCS Agronomists Chris Lawrence and J.B. Daniel, the only people in Virginia with experience using these demonstration tools, *do not have enough time* to make the most of these tools' potential. We have not been able to accept all invitations we've received to demonstrate these tools, much less to proactively seek out additional invitations. Even if our time were not limited, our limited number of devices *can't be everywhere at once* during the busy summer field day or winter meeting seasons.

But we've think we've got a solution — **YOU!**



Rainfall simulator demonstration using our "standard setup"



J.B. illustrates how a vigorous cover crop can open up the soil to a greater depth than any tillage tool. Root-viewing boxes can be used to make many other points about soil quality and crop growth.

Contacts for Virginia Rainfall Simulator & Soil Quality Demonstration Project

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Partner with us and your name goes here!

3. The SOLUTION: Partnership!

Below is our proposed solution to this problem:

- a. Build a *network of partners* around the state who know how to manage and make effective presentations with these tools;
- b. Obtain *more demonstration tools* and place them around the state in NRCS or partner agency offices;
- c. Create *videos and use the internet* to increase our educational reach and impact while cutting everyone's travel and time commitment;
- d. Dedicate one or more *technicians or interns* to help carry out these tasks;
- e. Begin implementing this strategy immediately with available partnership resources, but above all focus on seeking *outside grants or other new funds* to pay for the extra equipment and personnel needed to effectively implement the above strategy.

5. Our Next Step: GET YOUR INPUT

Although we believe there is strong interest in these demo tools among NRCS staff and partners in the field, we want your input to *confirm this project is worth pursuing*. We also want to identify those individuals and organizations interested in taking a *bigger role* in this project as presenters, grant writers, etc.

Once we receive input from the field and identify project partners, we can better define the scope and scale of our project, designate teams to tackle key tasks, and begin seeking outside funds to support this effort.

6. Your Next Step: SEND YOUR INPUT

In order to streamline the process of collecting your input, we have prepared a *simple, standardized form*. Consisting of just 10 multiple choice questions, this form will only take a few minutes to complete. If you have *any* level of interest in using / showing / promoting / owning one or more of these demo tools, please obtain a copy of the form and return it to us as soon as possible!



Tabletop soil quality demo: Clods of tilled soil dissolve (foreground), clods of no-till soil remain intact (background).



The wind erosion unit in action. Often overlooked, wind erosion can be a significant concern in some Virginia fields.



**SEND YOUR INPUT BY
JUNE 15, 2009!**

**Download our simple
"Input Collection Form" from:**

<http://www.va.nrcs.usda.gov/technical/CropAgronomy/RainSim.html>