Advances in Chaos Research:  
The Secret Formula to the Soil Science Institute

Thomas R. Villars

The 1989 Soil Science Institute (SSI) was held Jan. 30-Feb. 24, 1989 at Iowa State University in Ames. Forty soil scientists from all corners of the USA and three government agencies attended. The 4-wk course featured an intensive daily schedule of lectures in soil chemistry, soil microbiology, soil physics, soil micromorphology, soil-plant relationships, soil taxonomy, geomorphology, and computers.

One of our subjects was soil physics. I remember listening one day as the instructor explained how all behavior and natural occurrences could be easily distilled into simple little equations. One night I wondered, if every event in nature can be described by an equation, what is the equation for the SSI? Yes, I know, that’s a strange thing to be thinking about in bed. But how many great discoveries do you know of that were made while sitting at a desk? (Can you visualize Hans Jenny, sitting in a dull grey office, dreaming up the five factors of soil formation?! ) Anyway, our last assignment was to offer a critique of the SSI and suggest ways of improving it. Wouldn’t breaking it down into a formula be the most logical way to analyze it?

A few nights later, I dreamed up the following equation to scientifically describe the SSI for 1989. Before reading further, keep in mind that the SSI, like all other natural events, is basically a “reaction.” Every reaction has a set of inputs that affect the outcome. If you change the value of an input, you affect the end result of the reaction. Thus, in years to come, planners of future SSI’s can use this equation to predict how well the course will turn out. Don’t blame me if they decide to cancel it.

The equation and a review of each factor follows:

\[ SSI \ (1989) \ = \ (40SS^-) \ \frac{[E \times D \times F \times ^{\text{Beer}}]}{[T \times \text{Coed}^2 \times t]} \]

40SS^- = Forty soil scientists -. This factors in the course participants. You may have noticed that they have a negative charge. So would you if you were away from home for a month. On the other hand, have you ever noticed how friendly and outgoing the spouse or companion of a soil scientists is? It’s easy to see who’s got the positive charge in the relationship! But when you put a soil scientist outside in the fresh air, you get this reaction:

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1 Soil survey project leader, USDA-SCS, Town Hall, Woodstock, VT 05091.