of the core that is pulled. The force required to pull the core can be more than 300 pounds, with the average being about 80 to 90 pounds. Man can most safely produce the greatest lifting force in the final 15 degrees of leg extension. No matter from what depth the section of the core is being pulled the Backsaver Handle is at the ideal height.

A soil sampling tube fitted with a conventional rod and handle is forced into the ground by pushing downward on the handle. Shoulder, wrist and arm injuries can result particularly when working with hard ground conditions. The Backsaver Handle utilizes foot pressure to force the soil probe into the ground. The distance from the hand grip to the footstep of the Backsaver Handle is constant and is such that full body weight can be safely applied to the footstep.

Information and prices are available from JMC Services, P. O. Box 425, Baxter, Iowa 50028.

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**TRAINING IN SOIL SURVEY INTERPRETATIONS**

Recently, a course on soil survey interpretations was described in narrative form along with a list of 70 classic references (Olson, 1975)—as part of training sessions at Centro Interamericano de Desarrollo Integral de Aguas y Tierras (CIDIAT, Merida, Venezuela). The course emphasized soil maps and descriptions, costs and benefits of soil surveys, case studies of applications of soil information, comprehensive and engineering interpretations, erosion control and watershed management, quantification of soil properties for ratings and recommendations, and teaching others to teach others in the “multiplier effect” of transferring ideas and concepts.

Earlier, soils inputs to extension programs in New York State were summarized (Olson, 1974) for training of key leaders. A course outline for Agronomy 406 and 506 on use of soil information and maps as resource inventories has also been developed and revised in numerous teachings since 1969 (Cornell University, 1975). These course outlines, descriptions, and references are available to interested persons from the author of this article. Increasing interest in use of and teachings about interpretation of soil surveys indicate that transfer of teaching materials and concepts will assist greatly in standardizing courses and making them more applicable to local situations.

**References**

