Dear Editor:

RE: Use of the International System of Units in Journals Allied to Agronomy, Crops, and Soils

Use of the SI (Système International d’Unites) has been required by the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America for manuscripts submitted to their five journals since July 1982. Additionally, authors of all monographs, special publications, and books authorized for publication after April 1982 are required to use the SI system. The decision to require SI, preceded by several years of discussion, was made with the recognition that other U.S. scientific publications required SI and that conversion to this system would enhance communication with scientists from many other countries. Some society members have found the SI system cumbersome, and they note that much of the reported data must be converted to other units before such data can be understood by practitioners and their advisors. As a result, the societies have received some suggestions to cease requiring the SI system.

Because of these concerns, we investigated use of the SI system in representative journals read by society members. Excluded from our evaluation were state and regional journals and those journals that cover only a single commodity.

We identified 68 frequently cited journals from the reference sections of recent issues of the Agronomy Journal, Crop Science, and Soil Science Society of America Journal. Letters were sent on 3 Aug. 1984 to the journal editors asking the following three questions: (i) Do you now require or encourage data to be reported in the SI system? (ii) Is the use of the SI system optional? and (iii) Are you considering requiring or encouraging the use of the SI system in the future? Follow-up letters were mailed on 2 Oct. 1984 to those editors who had not responded to the first inquiry. The questionnaire was returned by 58 of the 68 journal editors.

We also examined the instructions to authors in 39 other journals to determine whether or not they required SI units. Most of these additional journals were cited in the Agriculture, Biology, and Environmental Sciences edition of Current Contents.

Seventy-seven percent of all 97 journals either required or encouraged the use of SI (Table 1). Of journals published in the USA, use of SI was slightly lower at 68%, or 23 of 34 journals (Table 2). Use of SI was high in Western Europe, Canada, Australia, and New Zealand. When categorized by subject matter area using the Library of Congress Cataloging system, we found that the requirement was frequently given for both applied agricultural and basic science journals (Table 3). We found little indication that journals not now using SI will do so in the near future. But two of the follow-up letters indicated that they are considering requiring SI in the future.

While this survey did not include all journals, it does show that the majority of the national journals read by society members require or encourage the use of the SI system. It suggests that the goal of greater consistency within the metric system, the impetus for the General Conference of Weights and Measures to initiate the SI system, is being realized.

According to the American National Metric Council, the USA is virtually alone as a country not using the SI system. Many many of our major trading partners, the USA, however, have been converting to metric units so that their products can compete in foreign markets. There has been a steady increase in use of the system in non-agricultural fields such as beverages, chemicals, and many other U.S. and foreign industries. The federal government, especially agencies such as the Department of Defense and Department of Commerce, is removing barriers to use of the system. The conclusion is that eventually the USA will convert to SI.

Until that conversion comes, agricultural practitioners will continue to experience the problem of converting their units to others that they understand. We offer no easy solution. Practitioners should undertake educational efforts similar to those of other societies adopting SI. Removing the requirement, however, will create more problems for the societies to solve in the long run.