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Internationalization of American science and its funding.

M.B. Kirkham.

Upon the 75th anniversary of the Soil Science Society of America in 2011, a session was held at its annual meeting to document how the field has changed over the years. I was asked to give the long-term perspective for soil physics. I surveyed soil-physics research published by the society over the past six years (2005–11) and compared it with a review done in 1961 upon the 25th anniversary of the society. The results are in press (Kirkham 2012).

I share a summary of the results, because they might be indicative of other areas of science. Of the 299 papers in my survey, 186 came from outside the U.S. (62% of the total). Twenty-nine countries were represented with the People's Republic of China having the most papers (27 papers). In the 1961 review, only five countries outside the U.S. were cited (The Netherlands, England, Australia, Belgium, and France). The results of the survey showed that soil-physics research has become heavily international.

Six percent of the papers were solely authored. About 14% of the papers had a woman as an author or co-author. Of the domestic (U.S.) papers, 13% (39 out of 299 papers) were published by federal laboratories (33 of these papers came from USDA laboratories) and 25% (74 out of 299 papers) were published by 35 university laboratories.

I surveyed the sources of funding for the papers. Of the non-U.S.A. papers, 27% gave no source of funding and the other 73% usually cited funding by the government of the corresponding author. Of the domestic papers, 47% cited no source of funding, and the other 53% usually cited multiple sources of funding for each paper. Of the 33 papers from USDA laboratories, 27 acknowledged no source of funding. The other six papers cited funds that were usually from the USDA. Of the 74 papers published by university laboratories, 26 acknowledged no source of funding. Funding for the other papers usually came from multiple sources. Twelve university papers cited support from State Agricultural Experiment Station (AES) funds, and only two of the 12 cited AES funds for sole support. This is in contrast to 1961 when essentially all research done at agricultural experiment stations was funded by the agricultural experiment station. The fact that in my survey only two out of the 74 papers published in the U.S. at universities acknowledged sole funding from a state AES shows the drop in federal support from agricultural experiment station funds for research.

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News.

Ms. Kalaiyarasi Pidaran (kalai@ksu.edu) is continuing work toward the Master's degree and is currently writing her thesis.

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Wheat Genetic and Genomic Resources Center, Department of Plant Pathology, Department of Agronomy, and the USDA–ARS Hard Red Winter Wheat Genetic Research Unit, Throckmorton Plant Sciences Center, Manhattan, KS 66506-5501, USA.

Notice of release of KS13WGGRC60 (TA5657) stem rust-resistant wheat germ plasm.

B. Friebe, W. Liu (Laboratory of Cell and Chromosome Engineering, College of Life Sciences, Henan Agricultural University, Zhengzhou, Henan 450002, PR China), T. Danilova, D.L. Wilson, W.J. Raupp, J. Poland and R.L. Bowden (USDA–ARS Hard Winter Wheat Genetic Research Unit); A.K. Fritz (Department of Agronomy), M.N. Rouse (USDA–ARS Cereal Disease Laboratory, University of Minnesota, St. Paul, MN 55108, USA), M.O. Pumphrey (Department of Crop and Soil Sciences, Washington State University, Pullman, WA 99164-6420, USA), and B.S. Gill.

The Agricultural Research Service, U.S. Department of Agriculture and the Kansas Agricultural Experiment Station announce the release of KS13WGGRC60 hard red winter wheat (*Triticum aestivum* L.) germ plasm with resistance to stem rust (*Sr44*) for breeding and experimental purposes.

KS13WGGRC60 is derived from the cross 'TA3061/TA3647' F_2, where TA3061 is a Chinese Spring wheat stock monosomic for chromosome 7D (CSM7D) and TA3647 is a disomic wheat–*Thinopyrum intermedium* (Host) Barkworth & D. R. Dewey chromosome addition line having *Th. intermedium* chromosome 7J#1 added to the wheat genome. KS13WGGRC60 has the short 7J#1S arm derived from *Th. intermedium* translocated to the long 7DL wheat arm in the form of a compensating, Robertsonian T7DL·7J#1S translocation. The 7J#1S arm in T7DL·7J#1S has the gene *Sr44* conferring resistance to stem rust (*Puccinia graminis* f. sp. *tritici* Eriks. & E. Henn.) races TTKSK, TTSKT, and TTTSK. The compensating Robertsonian T7DL·7J#1S stock is cytogenetically stable and may be useful in wheat improvement.

Small quantities (3 grams) of seed of KS13WGGRC60 are available upon written request. We request that the appropriate source be given when this germ plasm contributes to research or development of new cultivars. Seed stocks are maintained by the Wheat Genetic and Genomic Resources Center, Throckmorton Plant Sciences Center, Kansas State University, Manhattan, KS 66506.

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MINNESOTA

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Wheat rusts in the United States in 2011.

Wheat stem rust (*Puccinia graminis* f. sp. *tritici*). Wheat stem rust was first reported in mid-April in Texas and Louisiana. Extreme drought conditions in the southern and central plains limited stem rust development and inoculum production for areas further north. Generally, wheat stem rust was found at low levels in scattered plots and fields in the Great Plains, Ohio Valley, and Great Lakes regions in 2011. The exception was northeastern Wisconsin, where 1 to 40% severities were found in commercial soft red winter wheat fields located within 5 miles of Lake Michigan. Race QFCSC was the predominantly identified race from wheat, the only other race identified from wheat was race QCCDC from a collection made in a plot at Crowley, Louisiana (see wheat stem rust observation map, Fig. 1, p. 226-227).

Wheat stem rust was found in areas of Texas, Louisiana, Oklahoma, Kansas, Nebraska, North Dakota, Minnesota, Arkansas, Missouri, Kentucky, Illinois, Indiana, Wisconsin, and Michigan in 2011. Nationally, wheat only incurred a trace loss due to wheat stem rust (Table 3, p. 231, and Table 4, p. 232).

Texas. Wheat stem rust was first reported in southeastern Texas in McNair 701 plots on 15 April. By 18 April, stem rust had been found in McNair 701 plots at Castroville and Uvalde in south-central Texas and by 23 April, it was found in McNair 701 plots at McGregor in central Texas. Stem rust also was found on emmer, barley, and triticale used as windbreaks in watermelon fields in the Rio Grande Valley in southern Texas on 20–21 April. The infection was sparse on emmer and barley with severities from trace to 20%, whereas the triticale was highly susceptible with severities up to 80S. The persistent and widespread drought conditions limited the spread and development of stem rust in the state.

Louisiana. Trace amounts of wheat stem rust were found in plots of an unknown cultivar at Crowley in southern Louisiana on 22 April.