
Statement of the International Wheat Genome Sequencing Consortium
Submitted by: Kellye A. Eversole, Executive Director

The International Wheat Genome Sequencing Consortium (IWGSC) is a collaboration of scientists, organizations, and individuals dedicated to sequencing the hexaploid (bread) wheat genome with members in 14 countries.

Wheat is grown on 17% of the world's cultivated land; it is the staple food for 40% of the world's population providing 20% of the calories and 55% of the carbohydrates consumed. Wheat, rice, and maize provide about three quarters of the calories and half of the protein required by the world's population and now wheat is the only one that needs to have a sequencing project underway. The sequence of the wheat genome will result ultimately in healthier and more nutritious food that could lead to vast improvements in human and animal health.

IWGSC Priorities. The IWGSC mission is to advance research by (1) developing DNA-based tools and resources; (2) obtaining a draft sequence of the bread wheat genome; and (3) ensuring that these tools are available for all to use without restriction. We strive to facilitate international cooperation and to coordinate scientific efforts to build the resources for wheat to be the next major species for sequencing. The IWGSC appreciates this opportunity to present its priorities for CSREES plant biology programs. First, we would like to applaud the vision of the CSREES for focusing the \$1.5 million FY 2006 NRI program area 52.1C, Plant Genome Structure and Organization, on advancing the knowledge of the wheat genome by exploring pilot draft sequencing approaches, coordinating with international efforts, and coordinating with other U.S. Federal, and state agencies. This program will give us essential insights into the structure of the wheat genome. Further, by announcing this program, CSREES is demonstrating USDA's leadership in advancing genomics for this important crop. The IWGSC encourages the CSREES to expand this program in the coming years and to lead the U.S. efforts for sequencing the wheat genome. The IWGSC strongly encourages the CSREES to lead the efforts to build the foundation for sequencing the wheat genome and to provide significant financial support to the following goals over the next 5 years:

- Developing a physical map and linking it to the genetic map;
- Determining the best approach for sequencing hexaploid wheat; and
- Sequencing and annotating the genic regions of hexaploid wheat.

We do not expect CSREES to fund all of these goals alone. The IWGSC is working to secure broad international funding support for these projects. There is no question, however, that it was the leadership provided by the CSREES that has led to the sequencing of the bovine and porcine genomes. We would like the CSREES to provide a similar level of commitment to the wheat project.

NRI Funding. The IWGSC also supports efforts to increase overall funding for the NRI as this is the premier competitive grants program for agricultural research.