WERA-066 has coordinated research since 1988 (Originally as WCC-066) with the original goal of developing integrated management strategies for the Russian wheat aphid in the western U.S. Research and extension groups participating in WERA-066 have made significant contributions in addressing crop loss problems associated with cereal aphids through establishing the scientific basis for sound integrated use of biological control, crop management including treatment thresholds, and host plant resistance. From these efforts, research and extension personnel have made significant advances toward reducing crop loss and unnecessary pesticide application through rapid implementation of research. Recent identification of new Russian wheat aphid biotypes stresses the importance of continued research and communications provided by WERA-066. This group has been very active in trying to establish guidelines for the detection and naming of these new biotypes and has stimulated cooperation among the researchers in various states to coordinate the efforts to monitor and to select for resistance to these new biotypes. Despite important accomplishments in biological control, host plant resistance, and economic assessment, the need for coordination of regional research and extension efforts remains.

Over the years the committee has expanded to include other aphid pests. The group felt that it was important to develop a more comprehensive understanding of aphid and natural enemy ecology, and aphid-host plant interactions in order to improve biological control and host plant resistance within sustainable and economically viable crop production systems. Quantitative information on (1) a regional assessment of cereal aphid pest impact, (2) the ecological linkages and impact of aphidophagous insects in agroecosystems (in particular at the landscape level), (3) aphid population genetics among crop and non-crop habitats, and (4) aphid movement throughout the region, will allow for more holistic approaches towards cereal aphid management. Integration of this information with currently studied ecological based management approaches (natural enemy thresholds and resistant cultivars) and previously devised insect control tactics (thresholds and insecticide use) must be considered if growers are to recognize and adopt these technologies across the diverse environments of the western U.S.

The committee's expanded efforts into other cereal aphids has provided the seed to encourage further joint research in the common areas of plant-aphid-natural enemy associations. This expansion was stimulated, in part, because of overlaps with other cereal aphid pests (e.g. greenbug, bird cherry-oat aphid, *Rhopalosiphum padi,* rice root aphid, *R. rufiabdominalis, and* English grain aphid, *Sitobion avenae),* and because of the importance of aphidophagous natural enemies throughout the region. The committee has also focused on aphid-borne viruses such as Barley yellow dwarf virus (BYDV) that cause chronic yield loss in the western U.S. and worldwide (approx. 3% of wheat and barley). Strategies for BYDV control can be integrated with cereal aphid control plans with the goal of establishing effective, environmentally sound integrated pest management programs. Such comprehensive multi-pest multi-tactic approaches can lead to sustainable long-term management of the cereal aphid complex.

Exchange of information and coordination of effort, between and among research and extension communities, has occurred in our attempts at cereal aphid management. There has been an active multi-agency participation in WERA-066 that includes State Agricultural Experiment Stations, USDA Agricultural Research Service, USDA Animal and Plant Health Inspection Service, Cooperative Extension Service, State Departments of Agriculture, National Plant Board, National Association of Wheat Growers, National Barley Growers Association, National

Agricultural Chemicals Association, state Wheat and Barley Commissions and grower groups, Agriculture Canada, Alberta Agriculture, Saskatchewan Agriculture, International Maize and Wheat Improvement Center (Mexico), International Center for Agricultural Research in the Dry Areas, Instituto Nacional de Investigaciones Agropecuarias (Chile), International Institute of Biological Control, Small Grains Institute (South Africa), Plant Protection Institute (Hungary), University of Alicante (Spain), Hebrew University of Jerusalem (Israel), and many other cooperating institutions for the exploration of biological control organisms. With our recent expansion into addressing comprehensive cereal aphid management, our committee welcomes and solicits exchange among other cereal aphid workers, particularly greenbug workers in the central and western Great Plains and from across the U.S. This broadening approach by WERA-066 was well considered relative to needed coordination of research activities among personnel stationed in multiple agencies and locations.

Because many of the members of WERA-066 have broad interest in all arthropods on small grains and noting the synergism that has occurred by expanding the original Russian wheat aphid working group to include other cereal aphids, WERA-066 further expanded to include other arthropod pests on small grains including the Hessian fly and wheat curl mite. This has enabled WERA-066 to bring a more holistic management approach to small grain pest management rather than becoming too focused on one pest at a time and to begin to coordinate the development of wheat varieties resistant to multiple pests.