**Maize Crop Vulnerability Statement**
**Reccomendations**
March 2016

**Summary of key points (1 p. maximum)** Maize *(Zea mays* L.) is the most important crop in the United States and one of the top three cereals in world calorie production. The United States is the world's leading exporter of maize. Because of the importance of the crop to the United States economy and the world food supply, it is essential that maize germplasm be protected, maintained, and enhanced. In this report, present germplasm activities are reviewed, status of vulnerability of the maize crop is examined, and germplasm needs are discussed.

**Recommendations of the maize crop germplasm committee**

1. Pathogens are under constant selection pressure to evolve greater virulence. Organisms that are currently non-pathogenic may evolve virulence. NPGS must identify way to develop monitoring systems to evaluate the development of new threats and systematic screening of maize accessions for resistance to pests and diseases deemed significant threats to US agriculture. International collaborations must be initiated to screen for resistance to diseases not yet found in the US.

2. The genetic health of the maize crop is a matter of National security. Thus it is imperative that there is publicly available knowledge of the genetic diversity of the standing US maize crop. The genetic diversity of the standing US maize crop should be evaluated using DNA based tools. The maize crop germplasm committee recommends that such an evaluation take place as soon as possible.

3. Regeneration of currently held accessions must be expanded. Categorization must also be expanded. An estimated additional $1,000,000 per year is needed for *Zea* genetic resources in the North Central Regional Plant Introduction Station budget.

4. Many landraces, populations, and wild relatives are at risk in situ. Most maize collections throughout the world have extremely limited budgets and these collections are at risk. NPGS must make every effort to obtain samples of these populations at risk. The system should continue acquiring public germplasm, including older inbreds, from programs that are being closed.

5. Expand the effort on enhancement of germplasm. As one step, increase funding of the GEM project from the present level to $2.5 million per year. This project will help speed incorporation of tropical germplasm into elite U.S. material and disease resistance evaluation efforts.