

## **Plant Breeding, Rural Life and Rural Development, a Prospectus for the Future**

### *The Plant Breeding Tradition*

A large percentage of plant breeders are trained at public institutions (Land Grant Universities) and work in rural areas to develop the next generation of plant varieties and cultivars for changing environments and the changing demands of both domestic and international markets.

### *Changes in the Rural Landscape*

The development of industrial agriculture brought changes that affect how rural Americans live, how they understand food production and availability, and how rural and metropolitan residents interact. As successful as the American agricultural revolution has been, many feel the need for a revitalized relationship between farmers and metropolitan consumers. A large number of small farmers do not produce crops for commodity or agro-industrial markets. They are critical links in local and regional rural economies and they produce a large share of the fruits and vegetables consumers enjoy (actually, prefer). They are often diversified and in addition to organic or farm-stand produce may also provide services such as rural-tourism. A heightened awareness of the importance of this traditional rural sector has emerged in part because today's consumers are interested in nutritional value, where food comes from and how it is produced, and most importantly, agriculture as it relates to food security and availability. Farmers and rural communities that have taken advantage of these changes in consumer attitudes (e.g., farmer's markets, eating local, community agriculture, farm to school programs, ethnic foods, and many other similar movements) have enjoyed revitalized markets and economic activity.

### *Plant Breeding and Rural Development; an Emerging Opportunity*

Plant breeders are uniquely positioned to reinforce the development of new markets and products at the rural-urban interface. Fanfare over re-release of the 'Ramapo' tomato, a Rutgers University variety renowned for its flavor, is one of many examples of how plant breeders fill the gap between consumer's expectations and farmer's needs. Collaborative or participatory plant breeding methods promise to address the agronomic constraints and desires of smaller scale producers while providing local and regional consumers with products that are more flavorful, more nutritious, and less susceptible to disease than those they remember from their childhood. Unfortunately at this time of great opportunity, the number of students being trained in plant breeding and the types of training they receive cannot meet the national need; small farmers are often relegated to outdated plant varieties that are ill-suited for their production methods and the desires of consumers.

### ***What is Needed?***

**We seek additional funding to support the training of future plant breeders and the development of plant breeding programs that can help farmers take advantage of emerging opportunities. The natural connection between farmers and consumers is being re-forged in dynamic new markets that require new products and scientists trained to assist their development. A stronger rural economic infrastructure and a more stable, healthy, and secure food supply will be the result.**