A
ccess to agricultural inputs for millions of limited-resource farmers is necessary to achieve global food security and is a long-standing challenge for world leaders, bilateral and multilateral development organizations, input manufacturers, distributors, philanthropists, academics, extension educators, and the farmers themselves. The Food and Agriculture Organization (FAO) of the United Nations and others project that global agriculture production must double or increase up to 70% by 2050 to achieve global food security.

As global demand for food continues to rise, driven by population growth (particularly in developing countries) and increased per capita incomes, the challenges of feeding about 9 billion people by 2050 will rely heavily on producing more food per unit of land and other inputs, given the competing uses for land and water, implying the need for greater efficiencies in food production, storage, processing, distribution, and consumption.

Substantial progress has been made in the last half century toward improving agricultural productivity. Continued dialogue on how to achieve the sustainable development goals suggest that more work needs to be done. The yield gap between developed versus developing countries, even for the same crop varieties, point to disparities in access to resources or inputs and the technical know-how or cultural practices essential for sustained improvements in agricultural production. Economic growth and increases in production for many nations has been insufficient to avoid food insecurity. Currently, food insecurity is less a problem of total production and more a problem of access and affordability at times and places when food is scarce.

Technology Adoption

Although farmer adoption of yield-enhancing technologies is key to increased productivity, the rates of adoption of even time-tested technologies have been slow in many developing countries. Constrains to achieving food security are many and varied and depend on the region or nations in question. These constraints could be technical, economic, political, cultural, climatic, religious, and/or biogeophysical. The suite of factors vary by location, and some countries have been more successful than others at overcoming or managing these constraints. Farmers, particularly those in remote areas without electricity or dependable water supply, often lack access to land, soil, and weather information and have little or no access to improved seeds, equipment, nutrient sources, weed control, insect control, disease control, irrigation, and other technologies needed to improved crop production. Even as rural farmers are open to learning new technical skills, their efforts are often stymied by the tribal, religious, and political unrest or complicated by shifting or extreme weather patterns.

A lot of goodwill has been demonstrated by developed countries to eradicate hunger. As their economies grow, developing countries are expected to do more by making investments in infrastructure needed to produce more food. The focus of a new Community within this Section, Gaining Access to Agronomic Inputs, is to improve access and training on modern agricultural inputs that will ultimately improve yield and reduce farmer risk by:

- Evaluating and removing barriers hindering smallholder grower access to modern crop inputs.
- Supporting extension programs that educate growers on the benefits and proper use of inputs.
- Empowering and encouraging entrepreneurship of local input distributors with sound business practices.
- Promoting partnerships among private and public agronomists for sharing technologies and experiences to improve farming practices where the lack of agronomic inputs has been most limiting to crop yield.

At the 2015 International Annual Meeting of ASA, CSSA, and SSSA in Minneapolis, MN, the Access to Agronomic Inputs Community held a symposium titled “Access to Agricultural Inputs: A Challenge for Achieving Global Food Security.” Speakers drawn from government, the private sector, NGOs, and academia shared success stories and lessons learned and the synergies needed to improve global food security and sustainable environmental stewardship.

Know Your Community: Gaining Access to Agricultural Inputs

by Charles Kome

Community Focus, Annual Meeting Symposium

Members of the ASA Global Agronomy Section have the experience and network of contacts necessary to overcome such barriers to access and impact on smallholder farmers in the developing world. The focus of this Community within this Section, Gaining Access to Agronomic Inputs, is to improve access to modern agricultural inputs that will ultimately improve yield and reduce farmer risk by: