





## Part of the Global Solution



by Amanda Spoo

any leaders struggle with the complex question of how we are going to feed a growing world population. In agriculture and the grain industry that question has been present, front and center for quite some time, and Sajid Alavi is stepping forward to answer it.

For the past 10 years, since his arrival at Kansas State University, Alavi, associate professor in the Department of Grain Science and Industry, has become a resident specialist in food processing and extrusion. Using his expertise, he has contributed in the outreach to industry partners through the International Grains Program.

"I hope that the value that we provide our close partnership with industry is relevant and has a big impact on industry needs and challenges," Alavi says.

Originally from India, Alavi began his education earning an engineering degree from the Indian Institute of Technology. Next, he attended Pennsylvania State University and received a master's in biological and agricultural engineering. He finished with Ph.D. in food engineering from Cornell University.

In 2002, Alavi arrived at K-State and found a place he could pursue his passion to make a difference on a global scale. "A large part of my research projects and work is international in nature," Alavi says. "I'm working toward being a part of the solution."

## Meeting a Need

One way that Alavi is working toward a solution is his involvement in IGP course programming through the extrusion processing short course. During its eight year history, the extrusion course has been attended by approximately 250 participants, representing 25 countries. According to Alavi, the opportunity to network and develop strategic partnerships with industry has given him valuable ideas for research and international outreach. Over time, he



Alavi teaching in the food processing lab at Universidade Eduardo Mondlane.

has seen the principles taught in his course turn into results for those who attend.

"There was a lady from California who was interested in exploring a new breakfast cereal idea. She had a concept in mind, but she didn't have any way to make it happen from a technology or business point of view," Alavi says. "The course was important for her to understand how cereal is made and how the technology of extrusion works in general, and she was able to make some key professional connections to help her move forward with her idea."

Alavi explains that the key to the course's success is that it is directly relevant and unique to the industry. "It is driven internally by the needs that we feel there are," he says.

## **Utilizing Partnerships**

Another part of Alavi's work to find a solution is done with various industry partners and government programs to pursue opportunities in global food aid.

One of those programs is the World Initiative for Soy in Human Health, a program of the American Soybean Association. This program's mission is to create commercially sustainable solutions and opportunities for U.S. soy protein by improving the health and nutrition of people in developing countries by addressing protein deficiencies.

"WISHH has been a great partner and this is an example of how working with stakeholders and sponsors can help open doors. They are engaged in popularizing soy around the world from the point of view of being a human food ingredient," Alavi says. "Their main target is in Africa and for that to happen they need to increase exports and demand in Africa for U.S. soy."

Working on this project, Alavi has traveled to South Africa and Mozambique to work with processors, non-profit organizations and other key individuals to help enhance the



Alavi stands with Professor N.M. Mokgalong, Vice Chancellor of the University of Limpopo in South Africa.

demand for soy and help technical based problems that limit the regions' soy-based processing industry.

As administrator of the Kansas Soybean Commission, who is a contributing funder of these projects, Kenlon Johannes endorses Alavi as a resource in developing international markets. "You can't eat a raw soybean — extrusion is a science that takes experience and expertise. Sajid is mindful in extrusion processing; he understands the equipment and how to teach others."

Alavi explains that through his international work and research, it is common for one project to lead to more networking and additional projects.

"So much of my work would not be possible if these networks were not in place. Others come to us with ideas and opportunities, which eventually lead to something bigger," Alavi says. "This involves globalization of our curriculum and gives students that become involved more exposure to agriculture and food processing in regions around the world such as southern Africa."

Another product of that valued network comes from the relationship that Alavi has developed with the United States Department of Agriculture and the USAID through a partnership with the U.S. Sorghum Check-off Program and the Kansas Grain Sorghum Commission.

"We work with these organizations on a project that started to explore how sorghum could be used as a food aid commodity," Alavi says. "It grew into a much bigger project, funded by the USDA Foreign Agricultural Service for \$4 million over a period of 3 years, to develop sorghum products to be used as food nutrition applications for infants and children below the age of five with Tanzania as the initial target country."

On the home front, Alavi is able to see the return benefit. "This is important to me because being centralized here in Kansas we cater a lot to both Kansas and U.S. producers, but everything that we do allows us to project ourselves internationally. In this fast changing world, globalization



Alavi visits the Institute for Promotion of Small and Medium Scale Enterprises with participants from a food security workshop that he organized in February 2012 in Maputo, Mozambique.

is important," he says. "We are no longer limited to U.S. markets, companies are expanding globally. These international projects help in developing opportunities for U.S. companies and our own students to become familiar with international business and culture. It so exciting that we are focused outwards and not just internally."

Friend and colleague, Florentino Lopez, executive director at the United Sorghum Checkoff Program has seen the impact that Alavi's work has had. "Sajid is extremely well respected; he continues to come to us with new ideas," Lopez says.

## The Driving Force

At the end of the day Alavi chooses to see opportunity, not the trials in the tasks before him. "My motivation now is that there are diverse applications and international opportunities to affect the lives of others, people need the 'right' food," he says. "The world is becoming smaller, and businesses are going global. That's why the international component becomes so important."

As a leader, Alavi recognizes that the future involves a bigger picture. "The resources are limited, and there is so much food that we need to grow, process and distribute. If we do not meet this demand it will lead to a lot of issues and conflicts are driven by basic human needs," he says. "We are in a unique position to solve these global challenges before we reach that stage. That is the driving force."