

Sowing Seeds for Heart Health

Low-lin varieties help feed a growing appetite for healthy foods.

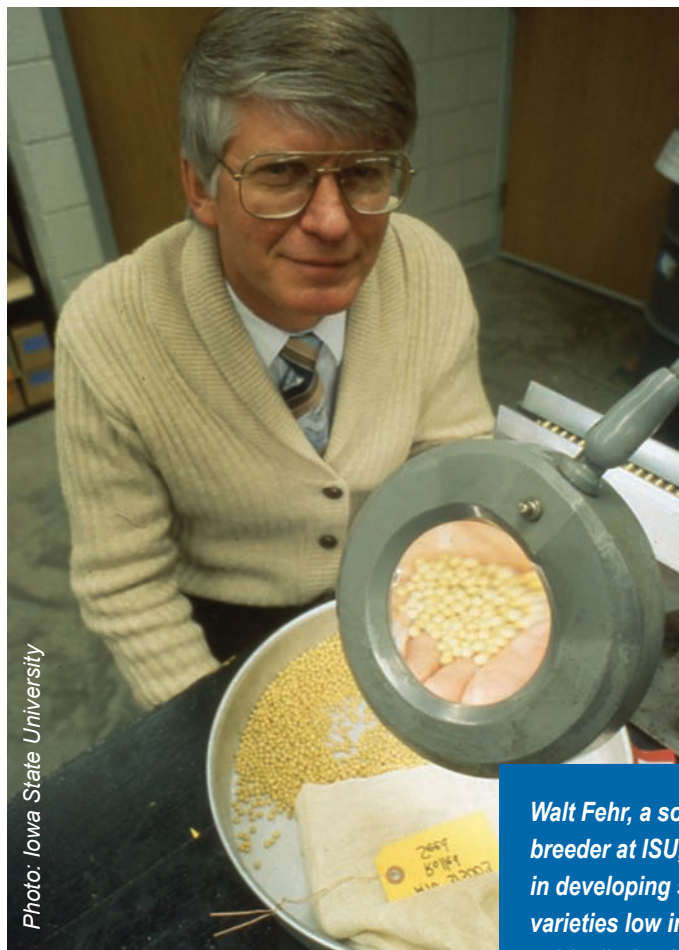


Photo: Iowa State University

Walt Fehr, a soybean breeder at ISU, is a pioneer in developing soybean varieties low in linolenic acid, eliminating the need for hydrogenation.

Alarmingly increasing obesity rates are boosting consumer awareness of the need to eat more healthy foods, and diets are changing, says Linda Funk, executive director for The Soyfoods Council. Food manufacturers have responded to consumer demands by using oil from low-lin soybeans. These specialty soybeans have been developed and promoted with help from the soybean checkoff.

“Intense industry and consumer demand began in January of 2006, when the FDA required trans fats information be put on food nutrition labels,” explains Funk. “We’ve been working for the past two years with the food service segment to show the soybean industry can provide the solution to lowering or eliminating trans fat from many foods.

Trans fats, or trans fatty acids, are created when manufacturers add hydrogen to vegetable oil, in a process called hydrogenation. Hydrogenation helps to increase the shelf life and flavor stability of processed foods. However, medical research has shown that consuming trans fat increases harmful cholesterol levels in a person’s blood and increases the risk for heart disease.

“Soybean checkoff funding is very important to getting the message out to the food service industry that low-lin soybeans can be the answer to the no-trans fat challenge,” emphasizes Funk.

Soybean checkoff funds from the Iowa Soybean Association (ISA) and the United Soybean Board (USB) have also been instrumental in developing soybean varieties that are low in linolenic acid, a component that causes oil to become unstable and go rancid, compared to commodity soybeans, says Walter Fehr, Iowa State University (ISU) soybean breeder. These low-lin soybean varieties are now helping to eliminate the need for hydrogenation that forms trans fats in foods.

“Soybean checkoff dollars have played a key role in developing low-lin soybeans,” says Fehr. “This research is important because it provides a soybean alternative to hydrogenated oil, rather than leaving that market to other crops.”

High premiums for low-lin soybeans are proof the checkoff funding is working as intended, says Larry Marek, a soybean grower and ISA director from Riverside, in south-east Iowa. “The demand has really been growing for low-lin soybean oil,” he says. “The market is really pushing this, and that’s why the premiums are so high.”

Over the last three years, Marek has been growing soybeans for Asoyia, a farmer-owned company that contracts with farmers to grow low-lin soybeans for a premium. Asoyia also sells the oil to food brokers and end users.

Marek’s Asoyia soybeans averaged about 50 bu./acre this past year, “within 2 bu./acre of our farm’s average for non-specialty soybeans,” he says. “There’s very little yield drag.”

Soybean yields for Asoyia ultra-low-lin varieties also averaged close to 50 bu. /acre in 2007 for Ben Schmidt, an ISA board member who farms with his father, Dave, near Iowa City, in east central Iowa. “Those yields were within the ballpark of what conventional soybeans were getting around here,” says Schmidt, who is also a farmer-owner of Asoyia.

With more consumer awareness of the trans-fat issue, the food industry isn’t likely to use hydrogenated oils much longer, says Schmidt. In fact, that’s a big reason Schmidt says he became a member of Asoyia.

“We saw the opportunity to raise low-lin beans to fit into (the heart-healthy oil) market,” explains Schmidt. “We believe some form of low-lin oil will eventually become the new commodity that will supply the total food industry. It’s important to keep our oil market in soybeans, or the food industry may turn to other crops for oils that we can’t produce very well in Iowa.”