The world of sunflower production is always changing. When I started working in South Dakota in 2002, I sold traditional oil sunflowers. It has been a steady change over the last 10 years, and I can’t tell you when I last sold a bag of traditional oil sunflowers. Primarily now we sell NuSun flowers, or on a lesser scale, high-oleic sunflowers (of course there are also dehulls, con oils, and confections). But as I said, things are always changing, and we may now be looking at a new type of sunflower.

Right now, the food industry is looking for healthier fats and oils, more stable oils (longer shelf life), and oil that could be solid or semi-solid at room temperature. This is where high-stearic flowers have a fit and an opportunity. They are “heart-healthier” than both palm and coconut oils but have the same qualities/properties that make those oils desirable. An oil with a high-stearic-acid content would have 0% trans fats, be low linolenic, and would be a solid/semi-solid at room temperature without hydrogenation. The amount of stearic acid in the oil determines at what temperature the oil is a solid. The higher the stearic content, the higher the temperature required for the oil to become solid. The high-stearic oil is a semi-liquid at room temperature and a solid in the refrigerator. It is being used as a spread as well as a food ingredient. It is also being used in the cosmetics industry.

High-stearic sunflowers are starting to make an appearance in South Dakota. Last year (2012 growing season), I was fortunate to be able to grow a test plot of the high-stearic flowers from Argentina on our farm. I was also able to meet with the experts (John Swanson and Matias Canepa from Advanta) that were keeping tabs on the trials and see the data that they gathered throughout South Dakota.

Last year, we used a mid-stearic-mid-oleic variety of high-stearic flowers in our trials. There were four locations in South Dakota: Dupree, Midland, Draper (all west of the Missouri River), and Onida.

I was unable to visit the other locations, but hand knowledge of the flowers that we grew on our farm at Midland. We grew the high-stearic flowers (NS 9024 from Advanta) in the same field as Croplan 356A. They were planted the first part of June, and it only rained twice on these flowers (1 inch as they were starting to bud and another inch about a week later). Upon emergence, we were unable to notice any difference in the flowers, and had they not been marked, we would not have known where one variety started or stopped. It wasn’t until after the second rain when the flowers started to open that we noticed the 9024s became slightly taller and bloomed just behind the 356As. There was also a small difference in color (the petals on the 9024 seemed slightly darker yellow). Looking out across and above the field, it was easy to tell the difference.

The roots and stalks of the plants were similar in size and thickness, as was the seed size and shape. They dried down at an equal pace and were ready for harvest at the same time. When harvest was over, it was determined (by weigh wagon) that the 9024s averaged 150 lb/acre more than the 356As. The test weight was the same, and the oil content in the 9024s was 0.5 points lower than the 356As. All in all, it definitely fit in right along with everything else we were growing. On any year, and especially a drought year, producing 150 lb/acre more can be a big deal! There will be more trials to follow in 2013, and we look forward to repeating these promising results next year.

In a world becoming more health conscious and always looking for something new and better, is the high-stearic sunflower going to mark its place in the industry? I think there’s a good chance, and I am excited to be a part of it!