Building for the Future

GROWING SCIENCE
Exploring the science and technologies essential to agriculture

Agriculture is a leading industry in North Dakota and points clearly to the extraordinarily important role our state plays in raising crops and livestock to feed the world’s growing population. Farmers produce the food we eat and many of the materials we use. The future of agriculture depends on developing new technologies to help maximize production and minimize impact on our natural resources. Farmers look to science, engineering, and technology to streamline agricultural processes, including production, distribution, and consumption.

Virtual Farm and Farm to Table

Visitors play the role of a farmer, using data collected from a number of sources to inform their decisions about planting, irrigation, fertilization, and harvesting. The data drives their choices through the course of the growing season, which consists of a number of decision points such as budget, location, till or no-till, crop insurance, soil management, and crop selection. The consequences of those decisions will play out during the game as the growing season is simulated.

The Growing Science gallery will also include an interactive Farm to Table experience, demonstrating the process from production to consumption.
**Animal Sounds** - Farmers and veterinarians need to be good listeners. The sounds an animal’s body makes can be an indicator of how healthy or sick it is. Large animals have their own unique health challenges. Visitors listen to the heart, lungs, and gut of a steer to learn about healthy body sounds and to detect signs of sickness.

**Cow Monitor** - Dairy farmers know that keeping their herd healthy is important. They use technology every day to monitor their cows. One tool that they can use is a cow health collar. Worn by individual cows, these devices record the cow’s rumination, movement and how often she is eating to inform the farmer of the cow’s general health. Visitors will check the data from these monitors on a virtual herd of their own and evaluate each cow’s health status.

**Soil Columns** - Soil plays a vital role in the Earth’s ecosystem. Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. The Soil Columns exhibit will show how the various types of soils across North Dakota determine which plants will grow and thrive, helping visitors understand why specific types of agriculture are more appropriate to practice in each region.