Nowadays, the need for food in the world is high. We exceeded the 5 billion people, so there is a need for development in order to keep the offer in accordance to demand.

The agriculture has made a few steps in that direction. The IT technology provided the basis of an increased yield and for a sustainable agriculture. One of the main and revolutionary items which were implemented in agriculture was the GPS system.

GPS is a revolutionary navigation system that has 24 satellites orbiting the earth and provides location within meters or less anywhere on the globe. Developed by the United States Department of Defense, GPS is officially named NAVSTAR GPS

Other satellite navigation systems in use or various states of development include:

- Beidou – China’s regional system that China has proposed to expand into a global system named COMPASS.
- Galileo – a proposed global system being developed by the European Union, joined by China, Israel, India, Morocco, Saudi Arabia, South Korea, and Ukraine, planned to be operational by 2011–12.
- GLONASS – Russia’s global system which is being restored to full availability in partnership with India.
- Indian Regional Navigational Satellite System (IRNSS) – India’s proposed regional system.
- QZSS – Japanese proposed regional system, adding better coverage to the Japanese Islands.

There are several players on the IT agriculture market, regarding the GPS technology. They provide solutions and products for different steps in the technology, such as: guidance and steering devices (displays, steering devices, implement guidance, radio, receivers and modems) used in: plowing, seed bed preparations, pest, weed and nutrient control (automatic section control, variable rate application control), harvesting (row guidance and yield monitor) and water management (3D leveling and drainage, laser transmitters and 2D leveling). Another field of interest is providing the correction signal for the receivers (for systems that are using sub meter accuracy) such as: Center Point RTK, VRS, RTX Omnistar HP, XP and VBS. For farm management there are several office solutions: office, connectivity, field and livestock. Cutting costs, saving time and ensuring the entire agricultural enterprise is more efficient and accountable, is essential to compete in domestic and global markets.

REFERENCES

2. www.trimble.com