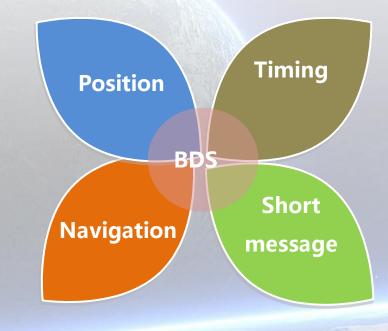
BeiDou helps informatization in agricultural machinery operation

JiangSu BDS Application Industry Institute

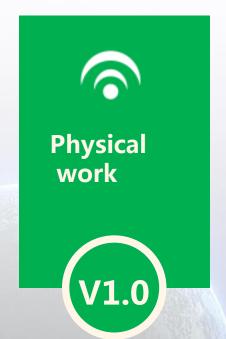
BeiDou Navigation Satellite System (BDS)

Development	BDS-1 1994-2003	BDS-2 2004-2012	BDS 2009-2020	
Completed in	2000	2012	2020	
Coverage	China	Asia-Pacific	Global	
Satellites	3	14	35	



The BeiDou Navigation Satellite System (BDS) has been independently constructed and operated by China with an eye to the needs of the country's national security and economic and social development. As a space infrastructure of national significance, BDS provides all-time, all-weather and high-accuracy positioning, navigation and timing services to global users.

Development course of Chinese agriculture



Traditional agriculture: a production and operation mode depending on physical labor and animal labor.



Agricultural
Mechanization: a
production and
operation mode
mainly based on
mechanization and
mass production.



Agricultural informationization: strengthen the construction of rural information infrastructure and build agriculture information service system.



Intelligent Agriculture: A modernized agricultural form Based on the achievements of Internet of Things and supported by Internet, Big Data and Cloud Computing .

Development status of agricultural mechanization

Difficulties and challenges

Agricultural production statistics, operation quality verification and agricultural supervision is inconvenient

Unreasonable
equipment for
agricultural machinery;
Low efficiency;
The combination of
agricultural machinery
and agronomy is not
close;
Agronomic techniques
and equipment do not
match.

Lack of labor;
Lack of management,
technology and planting
personnel;
Lack of R & D and
promotion of agriculture
technology;
Fake and shoddy
agricultural materials
lack supervision

Low level of agricultural informatization and organization

Government

Enterprise

Cooperative

Whole process

Beidou promotes the agricultural informatization Automatic drive **UAV** plant Agricultural **BDS** protection machinery

Precision

management

Automatic drive



The automatic driving system installed on the agricultural machinery uses Beidou Positioning Technology and remote control technology to divide the farmland into data grid, and farming is strictly carried out according to the set procedure, thus realize the unmanned digitized precision agriculture.

- ✓ Land production increased by 20%
- ✓ Land utilization increased by 10%-20%
- ✓ Reduce "leak" by 10%-20%
- ✓ Conducive to standardized operation, improve the efficiency of agricultural machinery by 20%.
- ✓ Reduce manpower costs by 30%
- ✓ Improve the critical time of operation, the spring sowing season can work 24 hours day and night.

UAV plant protection





Beidou positioning technology is used to apply agricultural and chemical fertilizers matching the needs of different regions. Once the UAV arrives in the operation area, the system will transfer the basic data of the area to the control platform, so as to achieve accurate positioning and automatic navigation, and then precisely spray drugs according to the designated area.

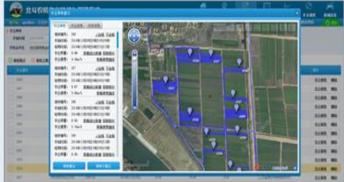
The integration of Beidou technology and agricultural aviation has greatly promoted the growth of agricultural machinery in China. This technology can save time and labor without wasting pesticides and fertilizers, greatly reducing agricultural costs.

Agricultural Machinery Manager-Beidou precision agriculture management platform





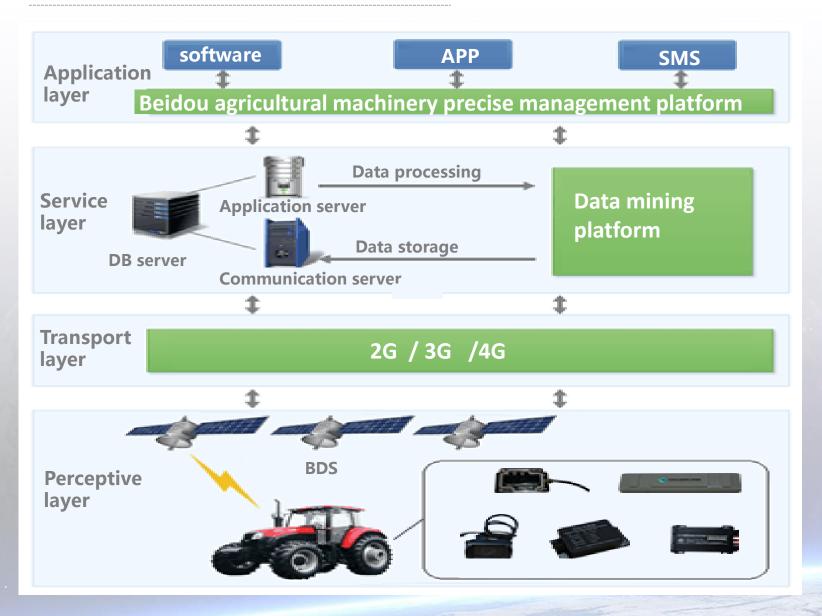




- Equipping Beidou terminal to agricultural machinery.
- Providing data collection, automatic processing, statistical analysis and precision management.
- Wide application area: mechanized sowing, transplanting, plant protection, harvesting, deep loosening, deep turning and straw returning.

the platform provides a scientific, fair and effective solution for agriculture management.

Precision management



By installing Beidou agricultural machinery manager system, we can get a comprehensive grasp of the specific position of each machine and its current working situation. Using computer analysis and summary of the relevant data, we can realize the precision agriculture management.

- ✓ Monitoring agricultural machinery condition data, fault warning and remote locking car
- ✓ Precise statistical analysis of operation data
- √ Farming scheduling

In modern standardized production agriculture, Beidou and relevant processing technology are used in standardized agriculture. Overall data of farmland is obtained, and the biochemical indicators of farmland soil are known. Beidou can also be well used in agricultural meteorology, such as weather monitoring and early warning, which has great practical value in guiding agricultural production, such as guiding sowing, irrigation, fertilization and so on.

With the continuous progress of machinery industry and electronic technology in society, Beidou will ensure the quality of future agriculture, realize intelligent management and production.





For more information: www.bdjsi.com