

JENSEN SEEDS



DANISH MANUFACTURER IS FIRST MOVER WITH NEW TECHNOLOGY

The Danish seed company 'Jensen Seeds' delivers more than 10,000 tons of seeds to its customers on an annual basis. This leaves no room for errors in the production and sorting of the seeds. This is where the need for a RFID solution to track, locate, and identify the process from breeder to fully automatic cleaning, sorting, and packaging, comes in.

RFID technology (Radio Frequency Identification) has increasingly begun to be used in several industries. With RFID, also known as 'invisible barcodes', you can automatically identify an object using radio waves, thereby increasing traceability and control, since it is always possible to locate a specific object, at a location, at a given time.

Although, most companies do not make the most of wireless technology. But that not the case at Jensen Seeds, which more than 10 years ago, back in 2009, implemented RFID technology, from the IT company Delfi Technologies, for quality assurance and process optimization.

INCREASED TRACEABILITY WITH RFID

Today, more than 3,000 RFID tags ensure full traceability at Jensen Seeds. Tags have been placed on the large wooden boxes, in which the seeds are stored, so that each box has its own unique identity that is updated when the box is emptied of one batch of seeds and filled with the next. There are also molded tags in the floor in front of storage shelves and cleaning machines, so you always track exactly where each box of seeds is located.

At the same time, the trucks that warehouse staff use to move the large boxes of seeds around from cleaning and sorting and storage, are equipped with an RFID reader and a tablet with associated docking station from which all work processes can be handled. Here, all movements of the seed boxes are automatically registered in the central ERP system (Microsoft Dynamics NAV), at the same second, they are executed.

- All our trucks work as mobile workstations. Here, employees can handle today's tasks. The RFID readers automatically scan all tags and pass data to the mobile tablets and our ERP system, explains Michael Olesen, says Michael Olesen, IT & System employee at Jensen Seeds.

PROCESS OPTIMIZATION AND BETTER CONTROL

In the work with quality assurance, Jensen Seeds is the first seed supplier in the world to use wireless RFID technology. Today, Jensen Seeds is owned by DLF, a global seed company that sells seeds for fodder grass, as well as private and professional lawn grasses, in more



than 80 countries around the world. Within DLF, Jensen Seeds is first mover, and many other manufacturers are therefore looking this way when it comes to inspiration for process optimization, better control and increased traceability.

- No one else in the industry uses RFID for process optimization like we do, but more people are now starting to realize the potential and are therefore looking our way, says Michael Olesen.

Jensen Seeds' production facilities are located in Birkum southeast of Odense (Denmark). The company owns 26,000 m² of land, and the factory covers 8,000 m², which is used for the production and storage of seeds as

well as office. When Jensen Seeds receives seeds from breeders, a fully automated system with seven seed production lines ensures the best results and uniformity in quality and yield.

QUALITY ASSURANCE AND ERROR ELIMINATION

To achieve the highest quality and purity of the seeds, Jensen Seeds uses the most advanced technology and equipment in the production. The RFID system from 2009 has recently been upgraded with new equipment from Delfi Technologies, ensuring future traceability with new technology.

The seeds are received from the breeders in very large portions, often 40-60 tonnes at a time from the individual breeders. Production takes place according to customer requirements. During the seed purification process, Jensen Seeds constantly checks the quality. When the quality meets the high standards of the company and the purity is at least 99.9%, the seeds are packed for the customers, who are large garden seed companies in Europe, North America and the Far East.

- In the work with quality assurance, the RFID system ensures that no errors occur. At the same time, we achieve full traceability, because with the help of RFID tags we can always track exactly where a box of seeds is located, says Michael Olesen.

SAVES A LOT OF MONEY

The consequence of mistakes is a costly affair, and there is simply no room for it. Michael Olesen continues:

- The RFID system eliminates the risk of mixing two different seed varieties – it is a clear advantage. There is simply no room to make mistakes, as it will mean losses of up to DKK 100,000 or more when you must discard entire

boxes of seeds. Most importantly, the system ensures that customers always get the right product.

One of the requirements for the solution and RFID equipment was that it had to be extremely robust because the storage and production halls may be dusty and shaking may take place. The truck terminals are particularly suitable for industry and are especially ideal for warehouses and warehouses, where they are often exposed to losses on the floor, dust, dirt, etc.

MANY BENEFITS OF RFID

Jensen Seeds mentions the following advantages of the RFID system:

- ✓ RFID helps make Jensen Seeds a modern and high-tech company – contributing to better competitiveness in the industry
- ✓ The risk of error sorting is eliminated – it saves time and money
- ✓ You always have 100% control over how many empty boxes you have, both now and in the future, so you can optimize the call for seeds from the producers
- ✓ There is a fully automatic and error-free registration of all boxes of seeds, from they are received after the harvest until they are sent to the customers
- ✓ Employees' daily work require less physical effort than with manual routines. All the tasks are presented continuously at the truck terminal instead of on paper and no one is driving the wrong way
- ✓ Robust RFID equipment ensures a durable solution with maximum uptime



ABOUT JENSEN SEEDS

Jensen Seeds is a well-consolidated and modern seed production company that could celebrate its 50th anniversary on May 10, 2012. Since 2017, the company has been owned by DLF, a global seed company selling seed grass fodder, as well as private and professional lawn grass, in more than 80 countries around the world. Jensen Seeds is the world's leading producer of spinach seeds, accounting for 80 percent of the company's production.