RIDDER

RIDDER

Effective monitoring for
better decision-making

Ridder Productive

Solutions for
Controlled Environment Agriculture

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ridder.com

Helping you grow
your way

Your challenge

Today's market calls for a grower that is not only a horticultural expert, but also a skilled manager. The demand for sustainable and high-quality products is growing, while prices are under continuous pressure. That's why gaining a thorough understanding of your labor and production processes is essential. Improving productivity and work quality, while reducing costs is a challenge that nearly every grower faces. It requires a grower to carefully monitor employees, activities, costs and quality. Do you keep track of these matters? And how do you ensure that the critical aspects of your business (e.g. employees, crops and product) are running smoothly together?

- **Improve worker motivation**
- **Easy to use**
- **Monitor productivity and work quality**
- **Adaptive Technology**
- **Labor savings of up to 15%**

Our vision

Improve worker motivation
We believe that motivating employees to be more productive should not affect work quality or result in more administrative burdens. Employees should be rewarded if they do the same job faster, handle the crop plants more carefully or are more vigilant in spotting diseases or pests. Productive helps you boost productivity by giving your workforce modern and user-friendly equipment that provides real-time feedback on their performance.

Easy to use
As a business owner you not only have to deal with ups and downs in sales, but also the fact that some employees will be more motivated than others. A nursery's workforce usually consists of permanent employees, temporary workers and seasonal or student workers with different native languages. A labor registration system should be effortless to use for your staff and not hamper their performance. This means it must be easy to operate, intuitive, available in their native language, and require no special training.

Monitor productivity and work quality
Reducing product costs, or improving productivity or work quality would be impossible without keeping track of your employees' activities. This requires your employees to register their time usage and production results. Every grower has their own way of collecting and analyzing such data. If this data can be presented and analyzed according to the grower's specific needs, it creates the best environment for improvements to be made. That's why a labor and production registration system should include flexible analysis options and allow you to easily identify and correct any input errors made by your staff.

Adaptive Technology
Every company is different and unique in its requirements. A solution should be tailored to your individual needs. It should also be easy to upgrade as your business grows, either in size or complexity. Are you looking for a system that simply registers employee attendance, or a more complex one that uses various peripheral devices? Productive is scalable and adaptable to any situation. We can even design a custom-made solution just for you.

Labor savings of up to 15%
By streamlining matters such as employee activities, work conditions and quality, you can save up to 15% on labor costs. This means some growers take less than a year to recoup their investment of Productive.

Our solution

We designed Ridder Productive specifically to register labor and production data. Productive is 4th generation software that incorporates over 15 years of experience. Productive is the most feature-rich labor and production registration system available today. The system is used with great success all over the world in both open field and protected horticulture, such as vegetable, fruit, ornamental or pot plant cultivation. The system was developed to offer the user maximum versatility and independence. The system is robust, reliable and ready for the future, making it easy to upgrade as your needs change.

Ridder Productive benefits

Convenient and easy to use for employees	Convenient and easy to use for managers	A wide range of options for peripheral equipment
• Intelligent and user-friendly • Various input methods • Easy-to-operate terminals • Fixed and mobile terminals • Accurate data input • Maximizes production • Performance-related pay • Easy damage and disease registration	• Everything at your fingertips • Greenhouse View tool • Quickly deal with damage and diseases • Accurate data output • A wide range of analysis options • Access control • Quality control • Product tracking and tracing • Labor scheduling	• Input terminals • RFID tags • Harvesting carts or trolleys • Customized weighbridges • Automatic counting • TV screen in the canteen to boost motivation • Data exchange with third parties

Convenient and easy to use for employees

Intelligent and user-friendly

To maximize productivity, crop harvesting and other greenhouse tasks should be made as easy as possible. This is especially the important in nurseries with many temporary, seasonal or student workers. Productive registers data using input terminals and other peripheral equipment. The input terminals are a breeze to operate since they feature buttons with self-explanatory symbols. In addition, the software's authorization settings mean employees are only shown what applies to them. These features simplify data entry to such an extent that the risk of input errors is reduced to a minimum, making Productive both intelligent and user-friendly.

Different nurseries, different input methods

Productive offers two input terminals for registering work activities. The input terminal that is best for you depends on the needs of your business and employees. Ridder developed both terminals especially for horticultural use, which means they're simple to operate, robust, waterproof and easy to clean. Both types of input terminal have specific benefits outlined below.

Fixed terminal for versatile input

Productive offers the most complete range of options in combination with fixed input terminals. These terminals were designed for ease of use to ensure correct data input. A fixed input terminal consists of a terminal holder in which a removable terminal can be inserted.
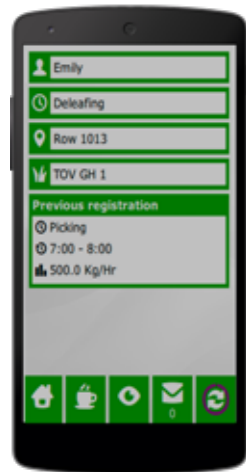
The holder both powers the terminal and allows it to communicate with the network. The terminal is easy to remove from the holder and can be inserted into any other holder. If you grow labor-intensive crops, such as tomatoes or cucumbers, we recommend placing a terminal in each holder so your employees can work more efficiently.

Employees enter data on the terminals using the numerical keypad or RFID tags. The large and clear display shows the required input questions in the employee's native language. The icons on the keypad make it a breeze to enter work activities. Practical experience has shown that employees quickly learn the various input methods. This makes Productive the ideal system for seasonal or temporary workers.

Error-free data entry with Ridder iScan

A key component of Productive is iScan: a smart, user-friendly mobile data scanning system that offers an affordable, pocket-sized alternative to fixed terminals. A multilingual smartphone app makes it easy for workers to log crop tasks, harvest yields and observations made in the greenhouse. Scannable NFC tags ensure fast and accurate data entry.
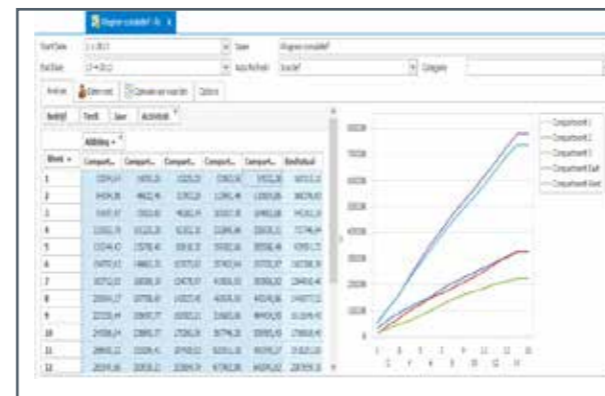
The iScan smartphone app provides an up-to-date overview of work processes and the status of your crop at all times. It enables you to monitor worker performance and work progress in real time, and allows you to keep track of production right down to last detail. The app will also help improve communication within your operation, thanks to the integrated messaging service for assisting and advising workers. iScan will even help improve your IPM performance, because workers can log pests and diseases on the spot.

Accurate data input

Potential input problems can be prevented by using peripheral equipment combined with RFID technology. An input error is quickly made. For instance, an employee might forget to register an activity or enter the wrong amounts. Productive makes it easy to correct such errors by filtering the input data based on standards. What's more, the employee can simply work on while the manager corrects any errors made. Productive stands out by its ability to reduce complex and time-consuming administrative tasks.

Maximizes production

There are various ways of registering production results. These include manually entering boxes or crates, the automated weighing of carts, or an interface with sorting machines to determine the net weight or number of pieces. If employees manually enter the number of boxes, Productive can convert this amount into the weight in pounds or number of pieces.

Performance-related pay

Productive allows employees to view their own performance results. If their performance exceeds the normal standard, they can receive a bonus per kilogram or container. However, a negative quality evaluation can result in a lower bonus. This motivates employees to work faster and produce better quality work in other words, to be more productive. That's why your investment in Productive will pay for itself in no time.

If an employee performs below the minimum wage for a particular registration and above the minimum wage for another registration, then the difference between the piece wage earned and the minimum wage will be offset by the piece wage accumulated from the registrations that did exceed the minimum wage. This gives employees an extra incentive to maintain a steady work pace.

Quickly deal with damage and diseases

Productive makes it easy for employees to register diseases, dead plants or broken windows they've spotted during harvesting or other activities. They can do so either using the graphical Greenhouse View tool or the input terminals. Employees with MiniMaX handheld terminals can register an observation on the spot, in which case the location where it was made is registered automatically.

Convenient and easy to use for managers

Everything at your fingertips

The Productive software provides a single point of access to all your labor and production data. The software's user interface consists of a number of conveniently arranged elements. These elements form the basis from which you or your supervisory staff can manage, analyze and control your company's labor and production processes. The user interface also features a modern and familiar ribbon-style design for quick and easy navigation through the software.

Graphical 'Greenhouse View' tool

Ridder's Greenhouse View tool is well-known in the industry. It provides a graphical representation of your greenhouse, in color and a customizable size. This graphical representation displays all indicators associated with the work activities and productivity in your greenhouse. Greenhouse View not only lets you monitor employees and their activities, but also shows any observations made, such as diseases, dead plants or broken windows, so they can be remedied quickly. This gives you maximum control over your greenhouse operation.

Accurate data output

If employees forget to register activities or enter the wrong data, Productive offers a simple yet comprehensive way to correct it. That's a reassuring thought, especially if this data is linked directly to your payroll administration or exported to your accounts system. As a result, Productive always provides accurate data output.

Productive allows you to quickly identify incorrect input by:
- comparing performance standards with the results achieved and using standard limits to highlight errors in a different color.
- filtering on an employee in the Greenhouse View tool to check whether a particular row has been completed or not.
- filtering out harvest registrations with no yields, so they can either be corrected or excluded from further calculations, keeping the standards accurate.
- applying various filters on the activities of a particular day, period, group or compartment. Pre-set filters can be saved.

A wide range of analysis options

Productive includes a wide range of analysis options. In addition to the various standard reports, Productive allows you to create custom reports and export them in different file formats. For instance, you can define your own pivot tables, like you can in Microsoft Excel. Every report can be customized to your needs, such as adding columns to apply calculations on the data shown. The conditional formatting feature enables certain data to be highlighted, making the reports easier to analyze. Besides pivot tables, the software can display graphs. These options give you a comprehensive picture of the costs per input, unit, hour, crop, etc.

Access control

Using comprehensive access control functionality, you can determine which employees may enter your greenhouse facilities and at what times. This module allows you to manage master data from a central point and control which areas your employees may enter with their personal RFID tags. You can program the access times of each employee, door and period. You can also add or remove exceptions to these access times for certain days, such as public holidays.

If an employee is granted access, a signal is sent from the door opener to the electronic lock and the door unlocks. Productive also registers who was permitted entry into your facilities, through which door and when, as well as which employees were denied entry and at what times. This allows you to enhance the security of your business significantly.

Quality control

Quality control checks can be registered at a fixed terminal or workstation. These checks enable you to assess the quality of the activities that your employees have performed. Various evaluation parameters can be defined for each activity based on which an employee is evaluated. Productive also offers a mobile application for performing these checks when activities are completed. This 'App' provides managers with all the information they need to register quality checks on the spot.

Tracking and tracing

If your greenhouse is equipped with a fixed weighbridge, the system can collect data on which employee picked which box of tomatoes (or other crop) from which row. This information can be displayed at the sorting line, so an employee can see straight away who harvested what and where. Since Productive can communicate with printers (e.g. Kortho printers), this information, including the date and time, can be printed on the boxes.

Data exchange with other systems

Productive provides a central point of data storage. Once stored, data can be exchanged with other systems. A connection or interface is generally custom-designed to ensure it fits your operational needs.

For instance, this allows your payroll administration to be updated automatically, preventing typing errors and saving time. Productive can also be connected to PLC-controlled logistical systems to register customer-specific yields.

Labor scheduling

Labor scheduling increases the commitment of employees and provides a clear picture of the planned activities. By drawing up a schedule, both the manager and your staff know in advance which activities need to be carried out and where. A schedule also motivates your employees to work together as a team to complete the planned activities within the set time frame.

Boosting employee motivation

Do you want to motivate your employees to be the 'best' or the 'fastest'? If so, the Productive Insight module gives you everything you need. It lets you define the key performance indicators for your staff, such as the productivity standards or the harvesting results achieved. You can then display these indicators on a screen in the canteen. This will boost the motivation of your employees, especially if they're given the opportunity to earn a performance bonus.

Functionality missing?

Productive provides comprehensive functionality in the area of labor and production registration. Since Productive was designed using a modern development environment, we're able to add new features quickly and develop any additional functionality you may need. You can also join our Productive user group. Together with a team of experts, this group devises new functionality with the most added value. This functionality is always developed first.

Options for peripheral equipment

RFID tags

RFID stands for Radio Frequency Identification and is a technology that allows information to be stored and displayed remotely on 'tags'. Productive uses tags, such as key chains or wrist bands. The purpose of these tags is to increase the speed and ease with which employees can input data. The tags also enable the system to automatically identify your employees, minimizing

Harvesting carts or trolleys

Productive's Monitor feature allows data from the last harvesting carts to be displayed at the vegetable sorting line. The system identifies the harvesting carts by their RFID tags and visualizes the corresponding cart data. The staff weighing the carts are shown on a display who filled which cart.

To recap, the Monitor feature enhances your process control by:
- providing data on the last harvest carts.
- registering harvesting carts automatically by an RFID identification system.
- displaying who filled which harvesting cart at the weighbridge.

Customized weighbridges

Ridder weighbridges are available in mobile, fixed, countersunk or hoist scale versions and are customized to suit any type of harvesting cart. We provide turnkey solutions for mobile weighbridges or can integrate our weighing system into a fixed weighbridge. Our mobile weighbridges are easy to connect to the terminal holders. If you opt for a fixed weighbridge with cart recognition technology, the system identifies a cart when it moves onto the weighbridge. Once the cart stops moving and the weight has stabilized, the cart number and weight are registered automatically for a fast and efficient weighing process.
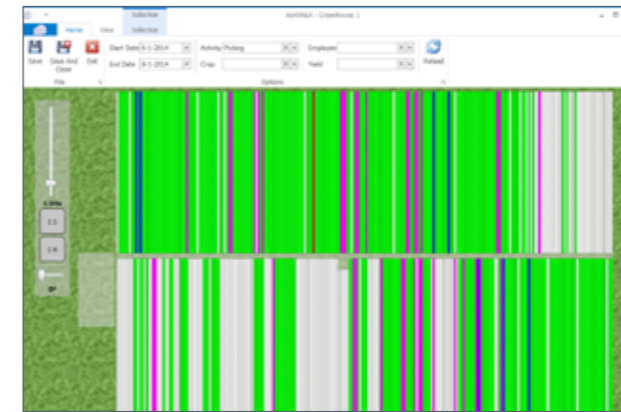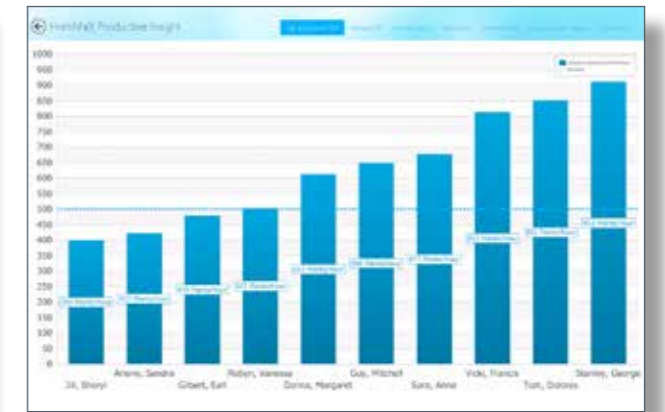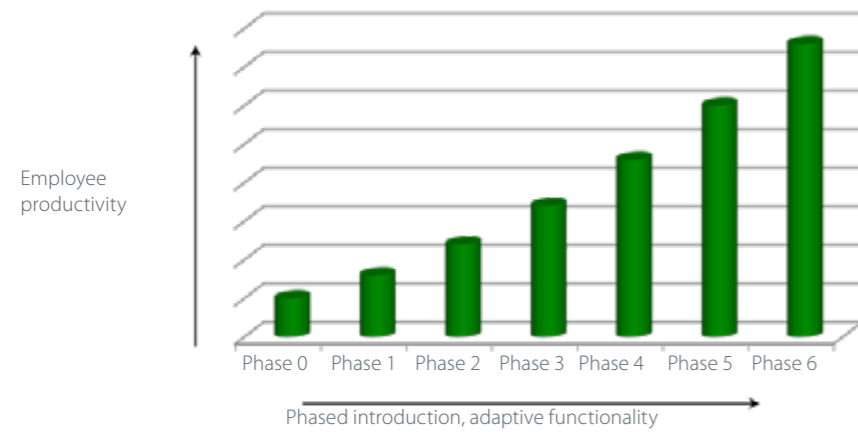
Automatic counting

Our fixed terminals have inputs for various sensors. One of the sensors that can be connected counts the number of harvested fruit, or the number of boxes or pot plants that have been processed, so you can accurately monitor the productivity of your employees.

Implementing Productive

Productive allows you to save up to 15% on labor costs. How to use Productive most effectively depends on your current situation and what your objectives are.

Productive is ideally suited to phased implementation. This lets you gradually add the functionality you want, so you can achieve higher costs savings in stages.

Employee productivity

Phase 0   Phase 1   Phase 2   Phase 3   Phase 4   Phase 5   Phase 6

Phased introduction, adaptive functionality

Increasing productivity in stages

Phase	Deployment of functionality
Phase 0	Phase 0 means there is no labor and production registration. This is usually the case when growers are just starting out or in countries where labor is relatively cheap.
Phase 1	The registration process is started and the data is recorded on paper.
Phase 2	As your workforce grows, so does your need to monitor their activities. The first functionality is implemented, such as time recording using wireless/fixed input terminals and the manual registration of production results. The system motivates employees by displaying the productivity standards on the terminals. You can analyze data in table format.
Phase 3	The system automatically registers labor and production data. The system motivates employees by displaying the productivity standards on both the terminals and video screens in public spaces (e.g. the canteen). You can analyze data in graph and table format.
Phase 4	You introduce performance bonuses and piece wages to boost employee motivation. Employees can enter observations to assess the quality of the crop. You manage your employees based on performance.
Phase 5	You start registering work and product quality assessments and using the capacity planning functionality (part of the Operational Management tools). Productive is connected to target systems, such as a payroll system.
Phase 6	This phase introduces the Management Information System for analyzing costs and revenues (part of the Strategic Management tools). You manage your business based on KPIs and aggregate data from multiple companies. You can analyze data with our Business Intelligence tools.