



Christiaens Group



BULLETIN 13 | THE POWER OF COMBINED EXPERIENCE |

The mushroom industry is ongoing in motion. Worldwide a trend of consolidation is going on. Customers become more professional and requires a partner which can offer a high level of professionalism.

Experience in supplying and erecting turn-key operations is a huge plus in offering the right concepts which are needed for an efficient business. Christiaens is doing total projects for over 2 decades and was the first company who had all disciplines within the company like construction, technical installation, control and machines. This experience is a big benefit running such projects. |



WEBSITE

In summer 2015 Christiaens placed a new website online.
www.christiaens.com

If you want to know how we can help you with your project feel free to contact us.





[Hungary]

EUROCHAMP

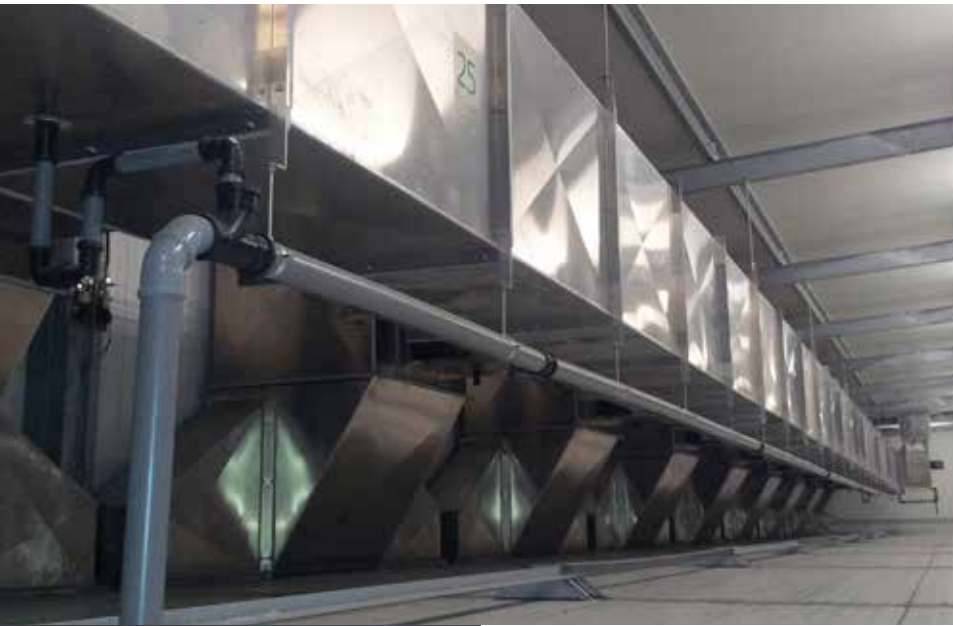
Eurochamp is a company of Bio-Fungi. The farm consists of 6 growing rooms of 562m² growing area. The focus on this project was to design a farm with good harvesting efficiencies, best air quality and distribution possible and energy savings. All in close cooperation with Bio-Fungi. The results are there.

Besides the narrow shelf width of 1,2 meter the layout of the rooms is set-up that there is more space for the harvesters. Hydraulic lorries are used to get the best efficiencies. With regards to the future the working corridor is set-up in a way that a pull through system can be implemented to split the farm in a dedicated pinning section and harvesting section.

To accommodate the required growing area the shelving became 39 meters long. To assure a good air distribution the air handling systems are placed in the middle on top of the rooms. The air handlers takes directly fresh air from the attic. A central make-up unit is preconditioning and pushing air under an overpressure on the attic. Preconditioning of this air is partly done by energy recovered from the overpressure air. The recovery takes place by a central exhaust which is connected to each room. The outgoing air in the room is pressure controlled. To assure a good air distribution over the length of the room there is a central overpressure duct installed which is adjustable. |







[Hungary]

BIO-FUNGI

Oyster facility

Currently Bio-Fungi is building an oyster farm with 12 growing rooms. Christiaens is supplying the climatisation for these rooms. The climate systems are specially designed to create the best climate and to be able to clean easily. Besides hygiene spores have a big influence on the capacities of the cooling and heating coils. Therefore good access and cleaning possibilities are crucial for a year round production.

Tunnel facility

The expansion of the composting facility kept going. In 2014 we added another 7 tunnels. In 2015 the last 6 Tunnels will be added to make this building complete. |





PICCIONI

[Canada]

The last expansion of Piccioni Mushrooms was building 6 growing rooms of 400m². The focus of Piccioni is growing the best quality of mushrooms. Therefore a lot of focus was laid on the design of the climatisation. We are proud that Christiaens was chosen to do this expansion.

The farm had to be able to produce besides white button mushrooms also the portabellas. Portabellas are a type which produces a lot of spores. When not keeping the spores under control it could have impact on the hygiene on the farm and capacity of the air handling system. The system was set-up with the possibility to filter not only the outgoing air but also the recirculation air. |



CHAMPINTER

Champinter is a large cooperation in one of the major mushroom production areas of Spain. Champinter had already a facility of 9 bunkers and 31 tunnels. To fulfill the growing demand they got the plan to build a new tunnel facility on the same location. Christiaens was chosen to do the expansion.

The project contained 5 Phase 1 bunkers and 16 Phase 2/3 tunnels. In the summer of 2014 the project got live. |

[Spain]





[Canada]

LOVEDAY MUSHROOM FARMS

Loveday Mushroom Farms is located in Winnipeg Canada and is one of the most coldest areas where you can find mushroom production. Temperatures in the winter time go regularly below minus 40 degrees Celsius. In order of Loveday Mushroom Farms Christiaens build a 7 Phase 2/3 tunnel facility to serve the growing facility with Phase 3 compost.

Building a facility in such a cold climate requires special engineering in several spots of the project. Such as reducing cold transfer from outside into the building, Preconditioning of the ingoing air as well as use of special components on the machinery to maintain the reliability during these harsh circumstances.

As part of the deal a new head -end filling machine was supplied to fill compost and casing at the same time. By taking this facility in operation the production got more consistent |





4 SEASON KING MUSHROOMS

[Canada]

4 Season King Mushrooms is a company located in Abbotsford which is close to Vancouver. This project is a turn-key project with 12 growing rooms of each 856m². Christiaens was responsible for the design and construction of this facility. |



LAUREL VALLEY FARMS

Recently we started up the new expansion of Laurel Valley Farms in Avondale, USA.

Phase 1:

We expanded the phase 1 facility with a new row of 5 bunkers. This set-up is unique in the world. The row with new bunkers runs parallel with the existing row of bunkers. We developed a new overhead filler which runs in between the 2 rows and can fill all the bunkers. Compost from the existing conveyor system is transferred with a conveyor bridge to the new conveyor set of the new bunkers.

Phase 2:

The phase 2 facility is expanded with another 4 tunnels to in total 15. Recently we got an order to make the next expansion. |

[USA]





[Belgium]

WALKRO BELGIË

Walkro België planned on expanding the capacity and this was also a good opportunity to build a state of the art facility with all kind of improvements on environmental side.

Christiaens got the order for supplying the machineries for this facility. The project contains 9 bunkers of 9x55 meter each. Each bunker holds approximately 1100 tons of Phase 1. The new building is connected with a long conveyor to the old Phase 1 facility. The old Phase 1 facility is now used to receive the raw materials and mix them for a few days before it enters the new site. The total production of Phase 1 is approximately 9000-9500 tons per week.

The new building has 2 overhead filling systems. Each system has his own supplying conveyor on the bunker deck. On top of the bunkers is a conveyor house installed in two different compartments. Each compartment has one conveyor system. This set-up makes it possible to separate the 'dirty' and 'clean' compost. In other words the young and unfermented compost and the ready and fermented compost.

Christiaens took this opportunity to fine-tune and upgrade the equipment. This results in capacities above 400 tons per hour. |



HIGHVELD MUSHROOMS

[South Africa]

A few years ago Highveld Mushrooms which headquarter is based near Johannesburg bought a controlling share in Medallion Mushrooms Western Cape Stellenbosch.

After buying it Highveld Mushrooms build a new compost yard on another location close by to improve the compost supply. A few years ago the new compost yard was completed with 3x Phase1 bunkers which are each 6x30x5 meter (WxLxH) and 1x Phase2 spigot floor tunnel which is 6x20x5 meter (WxLxH), all equipped with Christiaens machinery.

The new location also allowed the expansion in the mushroom production. End of 2014 was decided to construct a new facility with Christiaens consisting out of 18 growing rooms of 507m² each. Christiaens supplied all the main components like building, shelving, airhandling, controls and machineries. As well as the engineering of the other systems.

Due to the very warm and dry climate the air is centrally climatized to achieve a cooler and more moisturised air towards the air handling units.

Nine months after the order the first fill was a fact.



BOGLAR CHAMP

Boglar Champ is a relative young and rapidly expanding company. The company is established in 2002 and is at the moment by far the biggest grower in Romania.

Boglar Champ started to produce mushrooms on bags and trays. To improve the efficiency the owner decided to construct a Dutch shelve system. In 2011 the Christiaens Group started with building 9 growing rooms of 820m² each.

The farm was built completely turnkey. 2 years later another 9 rooms were added. Early 2015 Christiaens started another addition of 8 growing rooms and the last phase of the building is ready early 2016. In total this building contains 30 growing rooms of 820m².

On the website www.boglarchamp.ro you can find additional information. |

[Romania]





[Germany]

DECKERS BÜRSTADT PILZ

One of the biggest growers in Germany decided to build a new facility from scratch near the market of Frankfurt. Christiaens was given the order to build 22 growing rooms of 820m² completely turnkey. The project was split into 2 phases to be able to have mushrooms before Christmas and to start-up the project in 2 steps. The first stage was 14 rooms. In November 2014 the first rooms were filled. The second stage of 8 growing rooms was ready in the summer of 2015.

This farm uses one of the most efficient energy systems. A heat pump running on ammonia in combination with energy storage in the ground is installed for supplying the cold and warm energy.

The air handling systems are placed on top of the ceiling so the ceiling of the working corridor is raised till the level of the growing room ceilings. This allows the farm to be used with all kind of new developments in pinning and harvesting. |



INNOVATIONS

Christiaens understands fully the need of keeping innovating to be able to produce cost effective and with minimal demand for natural resources.

Currently we are working on a new concept of growing mushrooms with a focus on maintaining quality mushrooms with high harvesting efficiencies. The first tests are promising with harvesting efficiencies over 100kg/hour per person with simplicity in the technology which is needed to make it export worthy.

Together with several filling contractors like Hendrix, CNC and DPV we are developing new features on our head end filling machines to fill faster and fill the growing shelves perfect.

Other innovations are energy efficient farms (see Eurochamp and Deckers). Technologies like heatpumps, ammonia chilling, storage of energy in the ground, optimising climate control and heat recovery will become more common in a mushroom farm. |





Projects in progress:

- Foodcorp | 6 growing rooms
- TianShui National | 4 bunkers, 9 tunnels, 24 growing rooms
- JMBH Holdings | 12 growing rooms, 8 tunnels
- Rubi Creek Substrate | 8 bunkers (indoor)
- Yaghi Group | 6 growing rooms
- Farmers Fresh | 6 bunkers (indoor), 9 tunnels
- Heeren/Mezenberg | 68 hydraulic lorries
- Toyota | 3 bunkers, 9 tunnels, 24 growing rooms
- Bio-Fungi | 6 tunnels
- Tvedemose Champignon | 4 tunnels
- Goncalo Viana | 6 growing rooms
- Pedro Viana | 6 growing rooms
- West Coast Mushrooms | 7 tunnels
- Avina (Delfresh) | 4 bunkers (indoor), 8 tunnels
- DPV Vulbedrijf | contractor version headfiller
- Monterey Mushrooms | 8 growing rooms
- Walkro Netherlands | several machineries, tunnel doors
- Funghi CZ | 6 growing rooms
- Joriki Farms | 6 growing rooms
- Country Mushrooms | 1 tunnel, 18 growing rooms
- Highveld Mushrooms | 18 growing rooms
- TTM | 18 growing rooms
- Gulf Mushroom Products | 12 growing rooms
- Warwick Mushroom Farms | 24 growing rooms
- Laurel valley Farms | 3 tunnels
- Loonbedrijf De Haas VOF | casing seperator
- Nature Farms | 20 growing rooms
- Eden farm | 6 growing rooms
- Hooymans Compost | 2 stainless steel overhead fillers
- Boglar Champ | 4 growing rooms
- Bridgewater | mixing line
- Vialade | 8 growing rooms

Christiaens Group

Witveldweg 104 - 106 - 108
5961 ND Horst - The Netherlands

tel. +31 (0)77 399 95 00

info@christiaensgroup.com
www.christiaens.com