



The Key Points

- A sophisticated logistical system ensures uniform manure loading
- Manure enters the tunnel at regular intervals, so there is no interim storage on the premises.
- There are various loading units. Even the smallest has a loading capacity of 180 m³.
- The loaded manure consists of approx. 35% dry matter.
- The process is controlled and monitored by a climatecontrol computer.
- The composting and drying cycle amounts to approx. 2 weeks.
- The end product consists of approx. 85% dry matter.
- The closed circuit ensures that the end product is germ-free and sterile.
Result: an outstanding certified export product.

The major advantages of the composting tunnel

The composting tunnel is not only extremely beneficial for the environment, but also for your business continuity and finances.

How the environment benefits:

- An enormous reduction (up to 99%) in ammonia emissions.
- Volume reduction and considerable weight reduction with many indirect transport benefits.
- No detrimental manure residues, which means no harmful discharge into water sources.
- Air purification ensures up to 40% odour reduction.
- A much healthier stable climate and no flies. (Fly eggs are unable to develop.)
- Hardly any use of pesticides.

How your operational security and finances benefit:

- The production of a germ-free, stable organic fertiliser.
- A valuable export product for agriculture and horticulture.
- Low distribution costs.
- Low energy costs.
- Better working conditions. The tunnel is loaded automatically and the process is remote-controlled.
- User-friendly operation of the technical equipment.
- The entire process is managed and controlled by computer, 24 hours a day.



Compost as a valuable export product

Key Points

The Christiaens Group takes care of installing compost tunnels and implementing the technology on site. Maintenance and supervision can also be arranged.
Remote control and monitoring of the installed equipment guarantees optimum system operation for agricultural entrepreneurs.

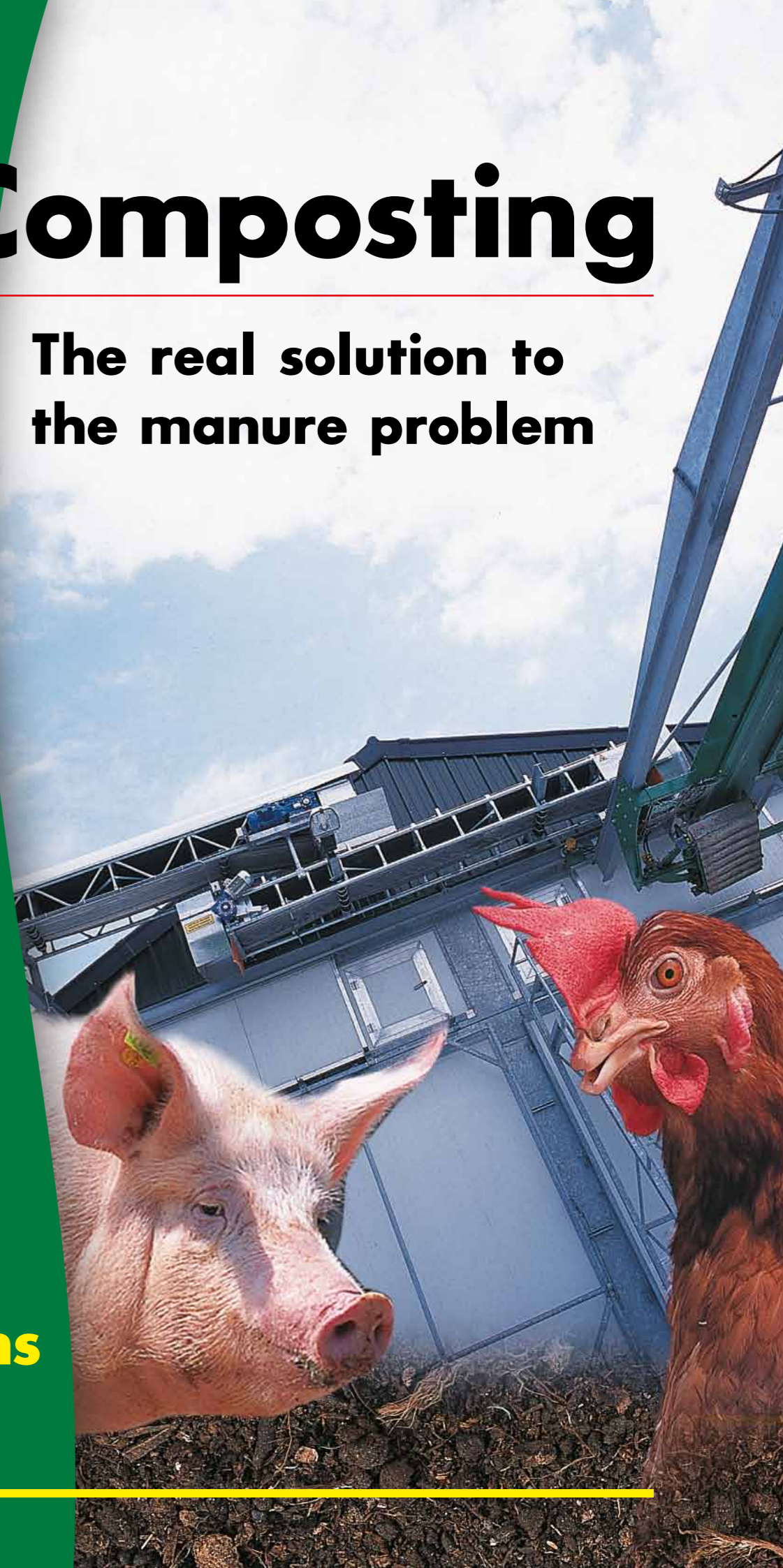
For All Agricultural Enterprises

Every agricultural enterprise has its own specific circumstances. With this in mind, each composting tunnel is set up and adapted to yield the best results for the enterprise concerned. Would you like more technical and detailed information on this exceptionally sustainable and effective total system? Simply telephone, fax or e-mail and a specified brochure will be sent to you.

The Christiaens Group (since 1971) is very innovative and productive when it comes to technological solutions for agriculture and horticulture. With specialised knowledge and expertise, it creates and implements total product-oriented construction systems, machines and installations for the agricultural sector.

Composting

The real solution to the manure problem



The power of combined experience

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The composting tunnel The solution for many agricultural bottlenecks

Government policy, environmental regulations, ever higher quality standards and specific export stipulations demand a great deal of willpower and inventiveness from agriculturists in developing their businesses. After all, you are an entrepreneur and your top priority is to ensure the **continuity of your business. Reduction of the amount of manure, reduction of ammonia emissions, germ-free composting materials and a controlled export product** are all essential conditions in this respect.

Sometimes, a single ingenious invention can provide the solution for a great many thorny issues.

The development of the composting tunnel by the Christiaens Group is a technical tour de force of this kind. A closed, safe system ensures that animal manure is converted into sterile, odour-free, export-quality compost in a rapid and controlled manner.

The composting tunnel in operation.

Genuine innovations are characterised by simplicity. Thus, the principle of the composting tunnel is actually quite simple. Nonetheless, development of the initial construction drawings into a completely reliable and operational tunnel took six years.

Operation

Animal manure is loaded into a fully closed tunnel area. A special aeration floor ensures optimum air distribution under the manure. A ventilator outside the tunnel causes air to flow through the manure layers via the aeration floor. Composting of the manure begins. The air above the manure is extracted and partially recycled through the composting material (air circulation). Since this organic and bacteriological process requires oxygen, fresh air is added. This is also effected in order to control the temperature. Simultaneously, process air is discharged via a controlled exhaust system. The air flows are controlled and monitored by a climate-control computer. As a result, the composting temperature remains virtually constant.

In an enclosed washing installation, acidified water ensures optimum purification of the discharged air. Here, virtually all the ammonia is bonded into a mineral-rich product (liquid ammonium sulphate). A spraying installation distributes this product over the manure to be composted, giving it more value as a fertiliser. If desired, this material can also be safely stored.



Overview of composting tunnel



Loaded manure tunnel



Loading unit



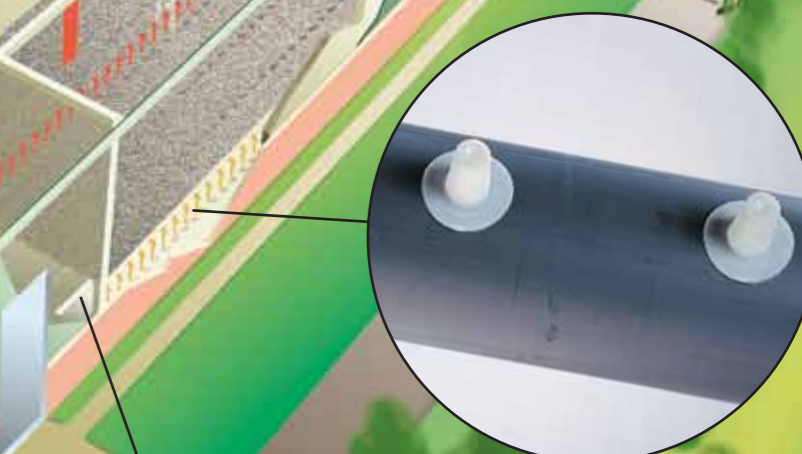
Ammonia scrubber



air washing system
and spraying tank



Climate control



Air distribution system



Computer control

