

# GEOSYNTHETICS

Using TenCate Nicolon® growing nets

 **TENCATE**  
**Nicolon®**

**INSTRUCTIONS**

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# USING TENCATE NICOLON® GROWING NETS

## GROWING ON SHELVES

Throughout the years several systems have been developed for growing mushrooms, e.g. tray, bag and the Dutch shelving system. Growing on shelves has become very popular. Reasons for that include an increase in the size of growing units, the need to improve disease control, health and safety considerations for growers and operatives, environmental issues and the availability of grants. Another issue is the availability and cost of labour. Growing on Dutch shelves leads to increased picking rates and the possibility of mechanizing filling, emptying and casing. In addition watering on Dutch shelving can be mechanized by means of a watering tree. The benefit of working on shelves can only be gained when all factors are optimized. An area which is often forgotten are the growing nets or shelve nets. Good use of growing nets can extend the lifetime of the nets and will prevent problems like shrinking nets and compost falling from the shelves.

Polyethylene nets are the best growing nets, these nets are made of synthetic monofilPE yarns, which means that no compost or dirt can attach to the yarns. It also means cleaning will be easier and therefore the level of hygiene will be higher. Polyethylene nets are available in several types for shelve lengths up to 100 meter and come in standard widths of 1.25, 1.37, 1.42, 1.45, 1.49, 1.58, 1.66 and 1.70 meter. The woven self-edge gives a good protection against tearing and possible damage. By using a stronger net the narrowing effect and shrinkage will be reduced and the life span extended.

## GROWING NETS AROUND THE WORLD

Around the world different kind of materials are used for growing nets. The table below gives an overview of the most common materials used and their positive (+) and negative (-) properties.

	Polypropylene tape <sup>(1)</sup>	Nylon multi <sup>(2)</sup>	Polyethylene mono <sup>(3)</sup>
Strength	-	+ / -	+
Air flow	-	-	+
Hygiene	-	-	+
Narrowing effect	-	-	+
Shrinkage	-	-	+
Chemical resistance	+ / -	-	+
Price	+	+	-
<b>Elucidation:</b> (1) Growing nets made from "big bag" (storage bags) material, a woven tape fabric (2) Growing nets made from woven textile yarns (3) Growing nets made from woven monofil yarns			

Looking at all the properties we must conclude that the polyethylene nets are the best growing nets around but more expensive as the others. The nets are made out of synthetic monofil yarns, which means that no compost or dirt can attach to the yarns. That also means of course that cleaning will be easier and therefore the level of hygiene will be higher. Polyethylene nets are available in several types for shelve lengths up to 100 meter and come in standard widths of 1.25, 1.37, 1.42, 1.45, 1.49, 1.58, 1.66 and 1.70 meter.



The woven self-edge gives a good protection against tearing and possible damage. By using a stronger net the narrowing effect and shrinkage will be reduced and the life span extended.

## TIPS ON USING GROWING NETS

Below some general tips to get a long life out your net and to prevent problems like tearing:

- › Start the pulling operation slowly to give the net the opportunity to stretch slowly. Keep on pulling on low speed until the total load is moving. If the load is moving the pulling can be speeded up to the maximum capacity the system will allow.
- › During the pulling operation try to avoid the pulling is discontinued. Mind that every new start has to be started slowly as described under the previous point. The highest strength is required from the net during this phase in the pulling operation.
- › Clean the nets after every pull. Be careful cleaning with a high pressure cleaner, because this type of cleaning can damage the yarn and reduce the pulling strength.
- › Inspect the nets after every pull to check if there is no mechanical damage that can tear the nets.
- › Most growing nets can only be used at a temperature around 20–25°C. Pulling at higher temperatures will reduce the pulling strength. E.g. pulling at 50°C will reduce the pulling strength with approx. 40%. Some stronger growing nets made out of a special yarn can be pulled at a higher temperature. Make sure you know which type of net you are using.
- › If the growing unit is cooked out the net must be removed. If the nets are heated up without compost on top, the net will shrink.
- › If the nets are slightly damaged during the process it is helpful to seal the tears with a hot knife or lighter.

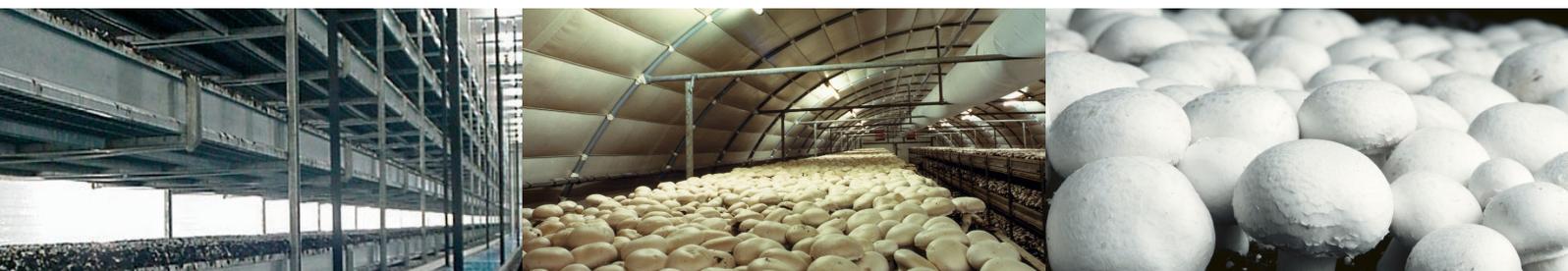
## CLEANING OF TENCATE NICOLON® GROWING NETS

Cleaning of TenCate Nicolon® growing nets serves many goals like increased hygiene, preventing diseases, increased lifespan, etc. It can best be done by spraying the nets with lots of water. Preferably, no detergents are used because they will influence the net in a negative way.

In the marketplace several net cleaning machines are available who in general clean the nets very good. In many cases they work with a lot of water, low spraying pressure (< 10 bar), multiple flat spraying nozzles and a rolling mechanism. TenCate advises this way of cleaning.

In areas where there is no net cleaning machine, a high pressure cleaner can also be used. In those cases please pay attention to the following instructions:

- › Keep enough distance between the nozzle and the net (at least 25 cm).
- › Clean with max. 100 bar.
- › Make sure pressure and water can flow away (free hanging of the net).
- › Use a flat spraying nozzle and never a rotating or equal nozzle (no pencil jet).



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## TENCATE GEOSYNTHETICS NL BV

Hoge Dijkje 2

Postbus 9

7440 AA Nijverdal

Tel : +31 (0)546 544 426

Email : nicolon@tencate.com

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