

GROW BAG WITH NON-WOVEN FABRIC



The Grow bag has been recognized widely as one of the most versatile mediums for growing in controlled green house cultivation. Not only does it increase product yield, but the method also reduces costs such as labour, energy, water ect.

The hydroponic cultivation industry has been evolving over the years and many areas have been focused on to increase efficiency and product yield. The latest are has been focused on healthy root structure as research shows that if the roots of a plant are healthy naturally it would produce good and healthy yield.

With this in mind our innovation center has been doing wide spread research inhouse on this particular area. Roots require both decent water holding, together with fertilizer and oxygen together with the flowability of same through the growing system to ensure enhanced efficient growing.

The latest innovation that we have found is a special PE material blend incorporated in Non Woven fabric that facilitates all the above factors.

Advantages

- 1) Good aeration and oxygen flow
- 2) Good Drainage that helps water retention
- 3) Temperature regulation in the growing medium

POLYDIME



PLASTICS

POLYDIME has been associated with the plastics industry since 1998 producing Grow bags, Polythene in roll, bag and pouch form, Alkathene and drip irrigation pipes, multilayer lamination films and pouches, Bio Plastics. We take pride in being one of the sought after names in the plastics packaging industry in Sri Lanka & Internationally.



NON-WOVEN FABRIC

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Developing healthy roots



One drawback the product would have apart from the discolouration of the bag, is that a long stable shelf life cannot be guaranteed. As such the product is recommended for short crop cycle products within 6 to 8 months after which there would be degradation that would take place.

Product offering

Regular Non Woven Fabric (NWF) product

NWF is built with Polypropylene (PP) Spunbond-Meltblown-Spunbond (SMS), depending on the process used to create them. Polypropylene is a fabric made of soft textured plastic fibers which are fused together using ultrasound and steam.

Compostable Non Woven fabric products

The same SMS process used, but the material used is certified compostable. TUV (EN 13432:2000 Standard) and SGS (ASTM D5338-15 certified). Based on TUV composting report 92% is compostable within 75 days (Industrial Composting)



Respiration

Respiration - Just like animals, plant roots respire, meaning they take in oxygen and release carbon dioxide. Adequate oxygen in the soil is crucial for this process. Without oxygen, root respiration is impaired, and the plant can suffocate.



Nutrient Uptake

The roots of plants absorb essential nutrients from the soil. Many of these nutrients are taken up in the form of ions dissolved in water. Proper aeration ensures that the roots have access to the necessary oxygen to facilitate this nutrient uptake process.



Microbial Activity

Soil is teeming with beneficial microorganisms that help decompose organic matter, fix nitrogen, and improve soil structure. These microbes also need oxygen for their metabolic processes. Adequate aeration ensures a healthy microbial population, which benefits the plant.



Preventing Root Rot

In poorly aerated or waterlogged soils, roots can become susceptible to diseases like root rot. These pathogens thrive in low-oxygen, waterlogged conditions. Adequate aeration can help prevent the onset of such diseases.



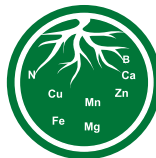
Root Growth and Development

Adequate oxygen in the soil is critical for healthy root growth. Roots need oxygen to grow, and good aeration promotes the development of a robust and extensive root system. This, in turn, supports overall plant growth and stability.



Water Drainage

A well-aerated soil has better drainage properties. This means that excess water doesn't get trapped around the roots, reducing the risk of waterlogging and associated problems like root suffocation and disease.



Soil Structure

Proper aeration also contributes to the overall structure of the soil. It prevents soil compaction, which can restrict root growth and reduce the movement of air, water, and nutrients through the soil.



Tolerance to Environmental Stress

Plants grown in well-aerated soils tend to be more resilient to environmental stressors such as drought or flooding. Adequate oxygen availability helps the roots cope with adverse conditions.



Enhanced Productivity

Healthy, well-aerated soil can lead to increased plant productivity, as the plant has the necessary resources and conditions to grow optimally.