

Turf: a natural sponge for carbon dioxide

By Turf Australia

Photosynthesis in turf

Turf farming relies on the sun to generate plant growth through the process of photosynthesis. Photosynthesis is turf's way of converting carbon dioxide from the atmosphere into plant material, using the sun's energy in the process.

During photosynthesis in turf, light energy is captured and used to convert water, carbon dioxide, and minerals into oxygen and energy-rich organic compounds.

That's right, the turf you see on turf farms, on our lawns and on our sporting fields are actively removing harmful carbon dioxide from the earth and replacing it with oxygen, improving air quality for all of us.

How the turf industry stacks up

A Hort Innovation strategic levy-funded project, An Environmental Assessment of the Australian Turf Growing Industry (TU16000), studied 30 different turf farms across the country to measure their carbon footprint.

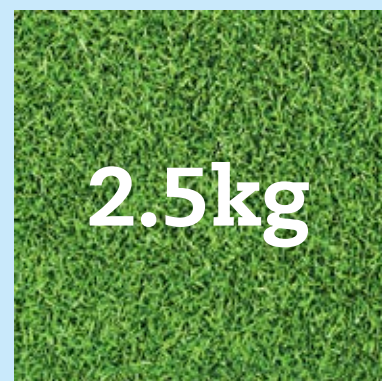
Each grower studied demonstrated strong net sequestration, meaning every single turf farm was reducing the level of carbon in the atmosphere.

Naturally, with any form of farming there will be some offsets to carbon sequestration from activities like energy and fertiliser use, but the level of carbon the each square metre of turf removes is so high, that it more than makes up for it.

On average, each square metre of turf removes 2.5kg of carbon dioxide from the atmosphere. Even when offsetting energy use on farm, each turf farmer is still 1.6kg of carbon dioxide per square metre ahead!

But it's not just photosynthesis

Almost every other possible ground cover comes with some form of end-of-life waste disposal problems which contribute negatively to the environment. Artificial materials such as synthetic grass, concrete or asphalt will at some point in their life become worn, torn and unfit for use.



The volume of carbon dioxide removed from the atmosphere by each square metre of turf.

When this happens, the materials must be disposed of and as yet, a viable recycling stream is not yet in operation resulting in artificial materials being trucked around and disposed of in landfill, contributing to poor environmental outcomes.

CHOOSE NATURAL. CHOOSE LIVING. CHOOSE TURF.



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Improving your carbon reduction Information for growers:

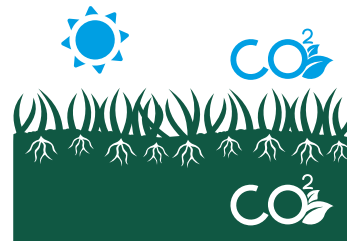
Harvest under ideal conditions



By harvesting under ideal conditions, and reducing turf waste, **growers will not only increase yields and their own bottom line, but sequestered carbon will improve.**

Wasted turf will lose its sequestered carbon during the decomposition process.

Maximise sequestration capacity



A strong, healthy and dense plant will be able to sequester more carbon than a limp and lifeless plant.

It pays to have the right amount of fertilisers to promote healthy plant growth.

You can't manage what you don't measure

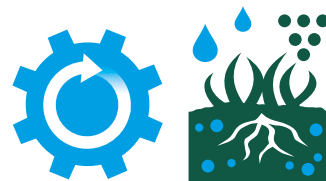


Efficient use of energy and all other farm inputs will reduce wastage and minimise direct and indirect greenhouse emissions.

The first step in energy efficiency is measuring the current usage of electricity by pumps and diesel in tractors as well as use of inputs like pesticides and fertiliser.

Once you have a baseline, you can aim to reduce.

Minimise losses of resources



Every time a resource like water, fertiliser or soil is lost it requires energy to get it back.

By diverting run-off into dams, covering soils and fertiliser with tarps and by using screens to prevent spray drift, you will be running a more energy efficient farm.