

***A draft Operating Procedure
for Carbon sequestration-***

Operating Procedure:	Increasing carbon sequestration in soil and plant matter
Significant Environmental Aspect / Impact:	Reducing atmospheric carbon levels by increasing carbon sequestration in farm soils, pasture & vegetation. Reducing carbon loss from soil & plant matter.
Legal requirements	None
Reference Documents:	Fertiliser course notes Best practice soil & pasture management course, seminar notes, websites (w.g. http://www.carboncoalition.com.au/ ,
Procedure Communicated to: by:	All staff
Process for Review of This Procedure:	Review Annually
Monitoring required	Height of pasture, pre and post grazing Pasture cover Soil organic & total carbon levels planting records (dates, species, numbers) for non-pasture areas
Records kept	Soil tests that include organic and inorganic carbon levels Changes in soil carbon levels over time Compost & related spreading dates, quantities Photographs from reference points
Procedure Authorised by:	

Procedures to be put in place: Nominate what you will do on your farm. Ensure monitoring and records will document changes over time.

- Adopt best practice rotational or strip grazing
- increase number of rotations without going below seasonal grazing limits
- during cell grazing, aim to achieve 20% trampling to form surface litter, 20% left standing
- use weed control methods that pull, cut down or graze instead of spray control
- to consume excess pasture grown, use grazing pressure or mechanical topping in preference to fodder conservation
- minimise harvesting of hay, silage
- minimise pugging by fencing-off pug-prone pod-soils in winter, early spring, after autumn break
- compost spreading to pastures to be sustained for long-term
- consider converting to rotations with higher organic matter inputs, (e.g. pasture cropping, summer/winter crops, legumes, fertilisers - manures, bedding, composts)
- use fertilisers, nitrogen sources, top-dressings, foliar applications etc which have higher organic carbon content (e.g. layer shed bedding, sprays with sugar products)
- reduce use of herbicides, pesticides and fungicides
- avoid soil erosion - see other Action Plans, Procedures
- in increasing water penetration and aeration, use deep ripping equipment that has minimal surface disturbance
- if using rotary hoeing, restrict its disturbance to top 25mm of soil
- renovate pasture by best practice carbon retention (e.g. spray-out, minimal till, over sowing, in preference to ploughing, crop rotation)
- change pastures to higher production grasses (and raise soil fertility to sustainably support them)
- shift from annual pasture to perennial species; reduce proportion of annual plants in pastures
- consider pasture cropping in perennial pastures
- foster deep-rooted perennial plant species that have significant biomass in their root systems
- add shelter belts
- consider planting woodlots, farm forestry, establishing wetlands
- increase number & size of plants, understorey, & trees in non-pasture areas
- minimise plant stress that releases carbon by avoid overgrazing, mechanical damage, planting too deeply, over watering, compaction, high levels of phosphates in wet soils