Western Port Greenhouse Alliance Agricultural Emissions Project

Idea No: 106 **Footprint Rating:**

Increase Soil Carbon

Description: Increased soil carbon levels imply that more carbon is being sequestered. The level of carbon in soil (a much larger carbon sink than vegetation) can be increased by replacing annual grasses with perennial pastures or legume crops, reducing tillage and fertiliser application, and by implementing good grazing rotation practices. Higher soil carbon levels will lead to improved soil structure, water holding capacity and nutrient availability.

Environmental Benefits as opposed to the current system

% reduction in GHG emissions:	9.68%
% increase in water efficiency:	4.09%
% reduction in waste to landfill:	0.00%
% increase in production:	10.00%

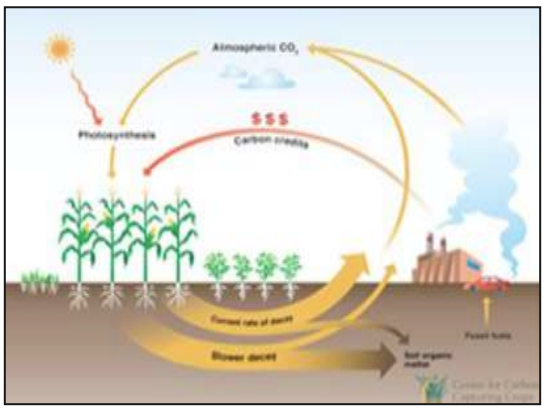
Benefits: Reduced energy costs and emissions

Costs: $2,200

Savings: 10 % increase in beef production
21t CO2 per year
0.118 ML water per year

Implementation/Monitoring/Reporting

Above: the effect of increased soil carbon is clear in the RHS paddock.



Above: The difference in soil structure between tilled (LHS) and untilled soil with increased soil carbon (RHS).

For more information see the following websites:

http://www.amazingcarbon.com/

http://www.amazingcarbon.com/PDF/JONES-AdaptingFarming%28April09%29.pdf

http://cw.cma.nsw.gov.au/pdf/Information/CWCMA_Information_2009Incentives_increasingsoilcarbon.pdf

http://tiee.ecoed.net/vol/v6/figure_sets/climate_change/img/Figure%201c%20Soil%20in%20Hands.jpg
http://2.bp.blogspot.com/_fTsAvkuJrEk/Rdq59KBRFTI/AAAAAAAAAG0/zcuuz5Svej0/s400/00+skinners.jpg
http://c2c2.iastate.edu/images/carbon_cycle_264x204.png