

Vegetable growing

Legislation for the government's proposed carbon tax is expected to pass. James, Industry Economist and Leader of the Vegetable Industry Development need to get to grips with the economics of the carbon tax and this article on grower operations.

The carbon tax proposal is part of the government's Clean Energy Future Package. Households and most businesses will be exempt from the carbon tax, although 500 of Australia's businesses will pay the tax.

Each of these companies will, from 1 July, 2012, pay an initial price of \$23 for each tonne of carbon they emit. The price will rise by around 5% per year (depending on the rate of inflation) in the subsequent

two years.

From 1 July, 2015, the carbon tax will be replaced by an emissions trading scheme, where the price of carbon will be set in the market place. The government will issue permits, which will be capped so as to achieve the government's pollution reduction targets.

Businesses involved in the scheme will have to buy a permit in the market place and surrender it to the government for each tonne of pollution they produce.

Australian Treasury modelling suggests that the price will rise by 5% in real terms, which at the current inflation rate suggests a rise of 8.6% per annum. At this rate, there will be a strong incentive to reduce carbon emissions or to engage in or encourage other firms to undertake carbon mitigation measures or soil sequestration.

The origin of the scheme

Pricing of carbon has deep roots in economic theory. Sometimes markets do not correctly price the social cost of an economic activity. This leads to externalities or spill-over effects that may be a cost to society. The government has decided that carbon emissions are one such externality.

Economists, like the rest of the population, will have divergent views as to the government's position. However, overwhelmingly they would advise that if society believes that curbs need to be placed on carbon emissions

that the least cost and most efficient way is through the use of market pricing rather than government decree. Hence the carbon tax and eventually an emissions trading scheme.

The economic impact

Pricing carbon involves raising the cost of production techniques that generate carbon emissions. By raising costs (price) of production, carbon-emitting industries are encouraged to look for alternative production methods, which will reduce carbon emissions.

One of the major contributors to carbon emissions in Australia is the energy sector, which has been built on the existence of plentiful and cheap coal.

Energy powers the economy and is an essential input into many businesses. Make no mistake that this is a major structural change in the economy.

The pain is being eased by all sorts of exemptions and phasing in, but the intent is clear. The cost of doing business using existing methods of production for energy will rise.

Economic modelling on the vegetable industry

We don't have any economic modelling on the impact of the carbon tax on vegetable growers' cost of production. That may be a blessing, for some of the modelling on other industries leaves a lot to be desired.

There was some earlier work done at the time when the previous emissions trading scheme that was defeated in parliament was being proposed. That scheme was more ambitious than the present proposed carbon tax and had fewer exemptions, so the increases in costs of production were higher. This modelling suggested an increase in

vegetable production costs of around 2%.

The impact on vegetable production costs

While agriculture emissions, hence vegetable growing, are exempt, the carbon tax will have a direct impact on vegetable growers' costs. With costs already on the rise and the industry unable to pass cost increases on due to the lack of pricing power in downstream market, margins will be squeezed.

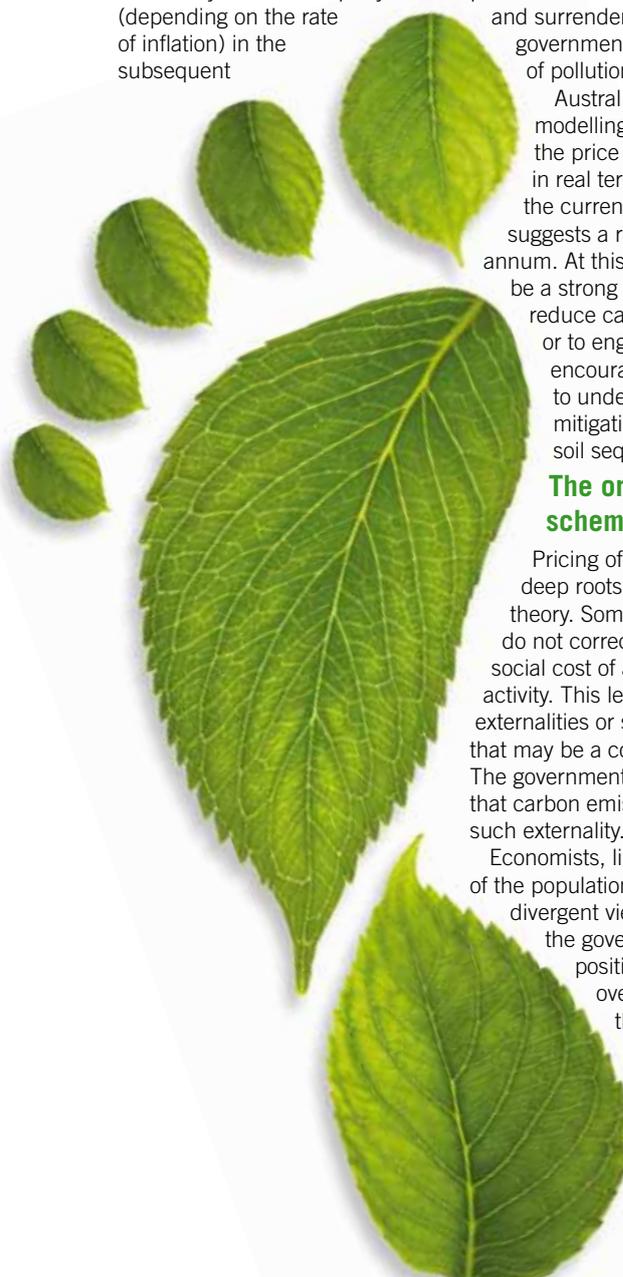
The big known is that electricity charges will rise by 10% due to the carbon tax. Electricity use on vegetable farms varies widely depending on a range of factors, including whether the farm has a packing house, whether the production is in the field or undercover, irrigation techniques used and whether there are alternative on-farm sources of energy.

Electricity prices also vary depending on location, state and region. The latest ABARES annual financial survey of vegetable farms suggested that electricity bills averaged \$11,000 across all vegetable farms. Many growers face bills much larger than this.

Updated economic modelling on work originally done for the National Farmers Federation on the impact of the carbon tax on beef farms showed a \$1,145 rise in costs in the first year and on sheep farms a \$976 rise in costs on sheep farms. So the electricity hit itself will raise costs of production for vegetable growers by more than the total assessed impact on beef and sheep farms.

Then there are other inputs that are essential to vegetable production.

Despite some arguments to the contrary, the carbon tax will place upward price pressure on inputs that use energy in their production such as fertiliser, chemicals, seed and packaging



and the carbon tax

through parliament by the end of the year, writes Ian Program's Economic sub-program. Vegetable growers will seeks to shed some light on the carbon tax and its impact

materials. These four inputs, according to the ABARES survey, averaged \$133,000 across all vegetable farms.

This will not be a one-off hit, as costs will increase as the carbon tax increases. Moreover, at present, heavy on-road vehicles have escaped the tax, but from 1 July, 2014 the government intends to bring these into the scheme. This will involve increased freight costs, so the cost of delivery of chemicals, fuel and fertiliser, as well as delivery of vegetables to markets if carried in non-own

trucks, will all rise.

The economic response

Vegetable growers will have to increase productivity or reduce costs in order to offset the production cost increase imposed by the carbon tax. This is not an easy task. Growers already seek to minimise costs in an environment where other costs continually rise without compensating price increases.

The carbon tax just highlights the ongoing economic challenge to growers. Even without the tax, electricity prices will rise

as electricity companies are investing heavily in upgrading outdated infrastructure. With future productivity gains limited, attention to production techniques that lower costs is the key to long run viability.

A follow-up article in Vegetables Australia (November/December) will analyse some of the positives contained in the overall package and how growers may be able to take advantage of these.

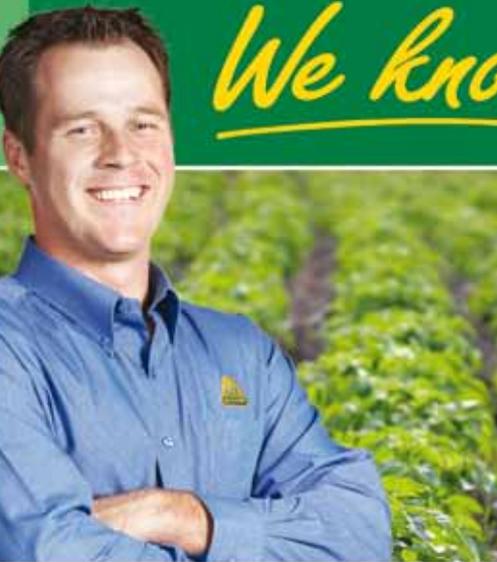
THE BOTTOM LINE

- Legislation for the proposed carbon tax is expected to pass through parliament by the end of 2011 and although vegetable growing is exempt, the tax will have a direct impact on vegetable growers' costs.
- It is expected that electricity charges will rise by 10%, which will impact upon growers' costs, and there will be price pressures on other aspects of production.
- Vegetable growers will have to increase productivity or reduce costs in order to offset the production cost increases.



Find more information
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Project number: VG08040

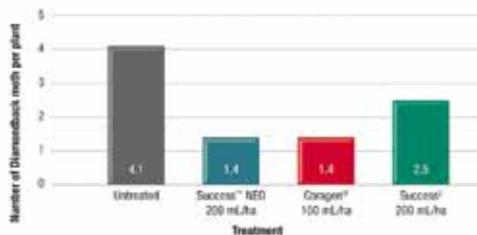
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