BIOFUELS - GENETICALLY MODIFIED CANOLA CROP TRIALS

**302. Hon NIGEL HALLETT to the Minister for Agriculture and Food:**

Will the minister outline how Western Australia will be able to supply a significant portion of its biofuel diesel requirements without the introduction of high-yielding genetically modified canola crop trials to try to increase low production?

**Hon KIM CHANCE replied:**

I thank the member for some notice of this question.

Before I give a formal answer to the question, I make the point that canola is unlikely to ever form a major feedstock for biofuels. Canola is a plant bred for human consumption. As a result of that, it has been bred from a narrow range of breeding lines that limit the presence of some of the more toxic acids that occur naturally in oilseeds. That narrow gene pool limits the yield factor available in canola. There is probably more opportunity to get high-yielding crops from the native grape seed variants, but there is no such thing as high-yielding canola at this stage. Similarly, canola is a plant that grows only in the most favoured agricultural circumstances; that is, where rainfall is high and reliable and soil fertility is high. There are not too many parts of Western Australia in which canola is grown reliably. It is far more likely that oilseeds for biofuel will come from the likes of cranberries and mustards, which grow east of the dry end of the canola zone.

A multifaceted approach is being adopted for the development of feedstocks for the biofuel industry in Western Australia. New variety and species development is already under way through the Department of Agriculture and Food and the Centre for Legumes in Mediterranean Agriculture, better known as CLIMA. This includes the development of conventionally bred higher oilseed yielding varieties with broader adaptation to a range of environments and the development of a wider range of annual crop species, such as mustard, camellina and linola, suited to current cropping systems.

Developing production systems that increase the capacity to produce a larger volume of these oilseeds will also be a component of the research program undertaken by the Department of Agriculture and Food. That is now in the budget papers. The development of perennial oilseed crops, particularly oil-producing trees suited to marginal soil conditions, and algae with the ability to produce fatty acids in saline ponds also offers longer-term alternative ways of developing feedstock for the industry and is under investigation.

Of particular interest to Western Australia will be new chemical technology under development in Europe and the United States that can convert straw and biomass to long-chain alkanes, which are the basic components of biodiesel, using the Fisher-Tropsch process. The basic concept is well established and processing plants for this purpose are under development overseas. The honourable member, as I said, would no doubt be aware that there is no such thing as high-yielding GM canola strains available for release. Existing GM canola strains are all moderate-yielding varieties bred for human consumption and selected for their herbicide-resistant qualities rather than for yield or drought tolerance.