WA grain growers could increase their returns by supplying field peas to the lucrative sprouting market, if their grain meets market specifications.

At $1300 per tonne, field pea sprouts are a high value product with a wide range of uses, from salads and sandwiches, to stir-frys and soups.

Currently WA produces 80,000 hectares of field peas and that is estimated to increase to 150,000 hectares by 2007.

University of Western Australia (UWA) student, Caroline Fowler of Williams, in her Centre for Legumes in Mediterranean Agriculture (CLIMA) supported honours project, has researched the sprouting process in field peas.

Field peas are an important food, with 70 per cent of production used for human consumption, mainly in the form of split peas, and the balance consumed by livestock.

Ms Fowler said the sprout producer obtains field pea seed from growers and then soaks, germinates and develops the shoot in the dark, before exposing the sprouts to light to develop the green colour.

“This process requires viable and uniform seed and the major concern for sprout producers is seeds that aren’t viable or are slow to absorb water and germinate.”

Ms Fowler studied the imbibition (the process of water being absorbed by a seed at the beginning of germination) and germination of three field pea varieties, Dundale, Dunwa and Helena that were grown in WA at Mullewa, Merredin and Scaddan.

“When hard-seededness is a major problem for sprout producers, worth noting is that some field pea varieties grown in WA, with sprouting potential, may differ in their capacity to absorb water and subsequently germinate.

“Unfortunately, up to 15 per cent of cleaned seed from growers doesn’t germinate after soaking,” Ms Fowler said.

Ms Fowler’s study suggests that careful variety selection and favourable growing sites should improve germination for sprout producers.

She further suggested that seed water content could be a suitable selection criterion.

“Lower initial seed water content correlated with reduced germination within varieties across the different sites, which could be why there was a greater percentage of hard seeds in Dundale from the Merredin site,” she observed.
Currently, sprout producers choose between the Dunn-type cultivars, Dunwa and Dundale, both of which are grown in WA. The new variety, Kaspa, is not preferred by sprouters because of its semi-leafless character.

Associate Professor of Plant Biology at UWA, David Turner said that seed sprout producers selected based on seed availability.

“Dunwa was preferred for sprouting because sprouters believe its large size is related to greater yields, however Dundale had the lowest capacity to germinate and of the three varieties tested, Helena had the best,” Associate Professor Turner said.

Co-supervisor of the project, CLIMA Director, Professor Kadambot Siddique, welcomed the value adding potential for growers supplying the lucrative sprouting pea market.

“Caroline’s project will help growers, like her family, efficiently diversify, value add and expand beyond the markets they traditionally supply.”

Professor Siddique concluded that her UWA honours project showed how a farming background could complement good science and add value to innovative farming practices.

Caption:  CLIMA supported honours student, Caroline Fowler of Williams, with some field peas grown on her family’s property, which could fetch around $1300 per tonne if sold as sprouts.

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