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**“The impact of agro-biotechnology on the canola seed
industry and canola productivity: technological lock-in?”**

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ABSTRACT

Following the surge of agro-biotechnology the canola seed industry has gone through profound changes. On one hand, through a process of both vertical and horizontal integration, the industry has become more concentrated. On the other privatisation of the R&D activities for the development of new varieties has occurred. Both these changes are likely to be reflected in the set of canola varieties offered to farmers, and hence on the degree of differentiation within the canola production system. In the case of canola we have assisted to a proliferation of Brassica napus varieties, to the expenses of Brassica rapa varieties. Today canola production in Canada is essentially a monoculture and interest in diversification is confined to public institution. This might reflect a technological lock-in where the private industry is unwilling to invest in alternative species in order to diversify canola production. In the case of agricultural crops the degree of differentiation (i.e. within crop diversity) is a key element in determining productivity.

This paper, drawing on the Canadian experience, looks at how changes in the seed industry have affected the degree of diversity within the canola production system and tries to assess its impact on productivity.