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FROM SEED TO PASTA III

**A SUSTAINABLE DURUM WHEAT CHAIN
FOR FOOD SECURITY AND HEALTHY LIVES**

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DURUM WHEAT BREEDING TO FACE CLIMATE CHANGE: TRAITS AND STRATEGIES FOR THE DURUM WHEAT OF TOMORROW – CANADA

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Climate change models suggest the durum production region of Canada will experience greater extremes in weather. Durum varieties will be needed that can tolerate greater extremes of heat and drought, but also have high yield potential under favourable conditions. Pressure from insects and disease is expected to intensify with climate change. Therefore cultivars will need to have improved resistance to diseases such as Fusarium head blight. New diseases and pests and strains of existing pathogens and pests favoured by the changes in environment will need to be anticipated with responsive breeding strategies. Adoption of genomic selection and gene editing are among the tools that will improve selection efficiency and improve breeding response time.

ABSTRACT