



HEAT DOME REDUCED PULSE YIELDS AND BROUGHT ON EARLY HARVEST ACROSS MUCH OF ALBERTA

APG PARTICIPATED IN TALKS TO QUICKLY MOBILIZE FINANCIAL RELIEF PROGRAMS & MITIGATE LOSSES



Peas, a cool-season pulse, are sensitive to temperatures near and above 30 °C. Prolonged periods of heat result in flower abortion, also referred to as flower blasting.

Weather challenged pulse growers across the province this growing season resulting in early harvest and lower than normal yields in many areas.

Pulse crops handle a variety of trials with their life cycle and farmers have worked to mitigate some of them, but weather is out of the farmer's control.

"Pulse crops are grown across Alberta and there is diversity in crop

types like pea, lentil, faba bean, dry bean and chickpea," said APG Chair Robert Semeniuk. "There is also variability in weather conditions in the province, but the one common point is that yields of all pulses have been affected by the intense heat this summer."

Typically, pulse crops like pea and faba bean are planted early in the spring enabling them to grow through their life cycle to harvest

before many of the other crops on the farm. The benefit of early planting is that pulses will flower earlier starting mid-June and complete seed set around the end of July depending upon the cultivar. Harvest also progresses earlier providing a benefit for farmers to have pulses in rotation on the farm. This year, the heat was early and intense causing flowers to 'blast' or prematurely abort and not form a pod. By not forming a pod the plant cannot produce seeds and yield is affected.

"Abiotic stress, like that from heat and drought conditions or even excess moisture like in certain parts of the province last year, needs to be further researched for pulse crops," said APG Research Manager Dr. Jenn Walker. "We are actively working with a team of scientists on methods and traits that help pulse crops mitigate these kinds of stresses. This future research work will provide solutions."

With the weather effects being widespread and impacting many other crops, APG reached out to crop commission colleagues in Team Alberta, the Government of Alberta and Agriculture Financial Services Corporation (AFSC) to discuss the repercussions of heat and lack of moisture and how to deal with the consequences.