Fusarium Head Blight (FHB) of Cereals

Fusarium Damaged Kernels (FDK)

Symptoms of fusarium damaged kernels caused by *Fusarium graminearum*

Damage due to diseases and midge that can be confused with fusarium damaged kernels caused by *Fusarium graminearum*

Canadian Prairie Spring (a) and Canadian Western Red Spring (b), showing fusarium damaged kernels (FDK) due to *Fusarium graminearum*, and healthy kernels (H)

FKD in Canada Prairie Spring (a), Amber Durum (b), and Canadian Western Red Spring (c & d). Currently, FDK’s in Alberta are relatively rare and typically caused by species other than *F. graminearum*. In Manitoba most FDK’s are caused by *F. graminearum*

Reddish discolouration (red smudge - RS) in durum caused by tan spot fungus infection of kernels

Orange wheat blossom midge damage in wheat

Healthy Shriveled kernels

Kernel size reduction in Katepwa wheat due to leaf infection by Septoria leaf spots. Seed infection with Septoria can also produce FDK-like symptoms

Reddish kernel discolouration in barley due to *Fusarium avenaceum* (does not produce DON)

Brownish lesion (a) and orangish discolouration (b) of barley kernels due to the net blotch fungus

Fusarium graminearum infected barley with 15 ppm deoxynivalenol (DON). Compare with symptoms caused by other diseases

Fusarium graminearum infected barley kernels (right - black sexual fruiting bodies that release wind-borne ascospores, left - orangish masses of rain-splashed spores)


• Consult provincial factsheets (e.g. Fusarium Head Blight of barley and wheat, Agdex 110/631-1, AAFC) and variety guides for more information.