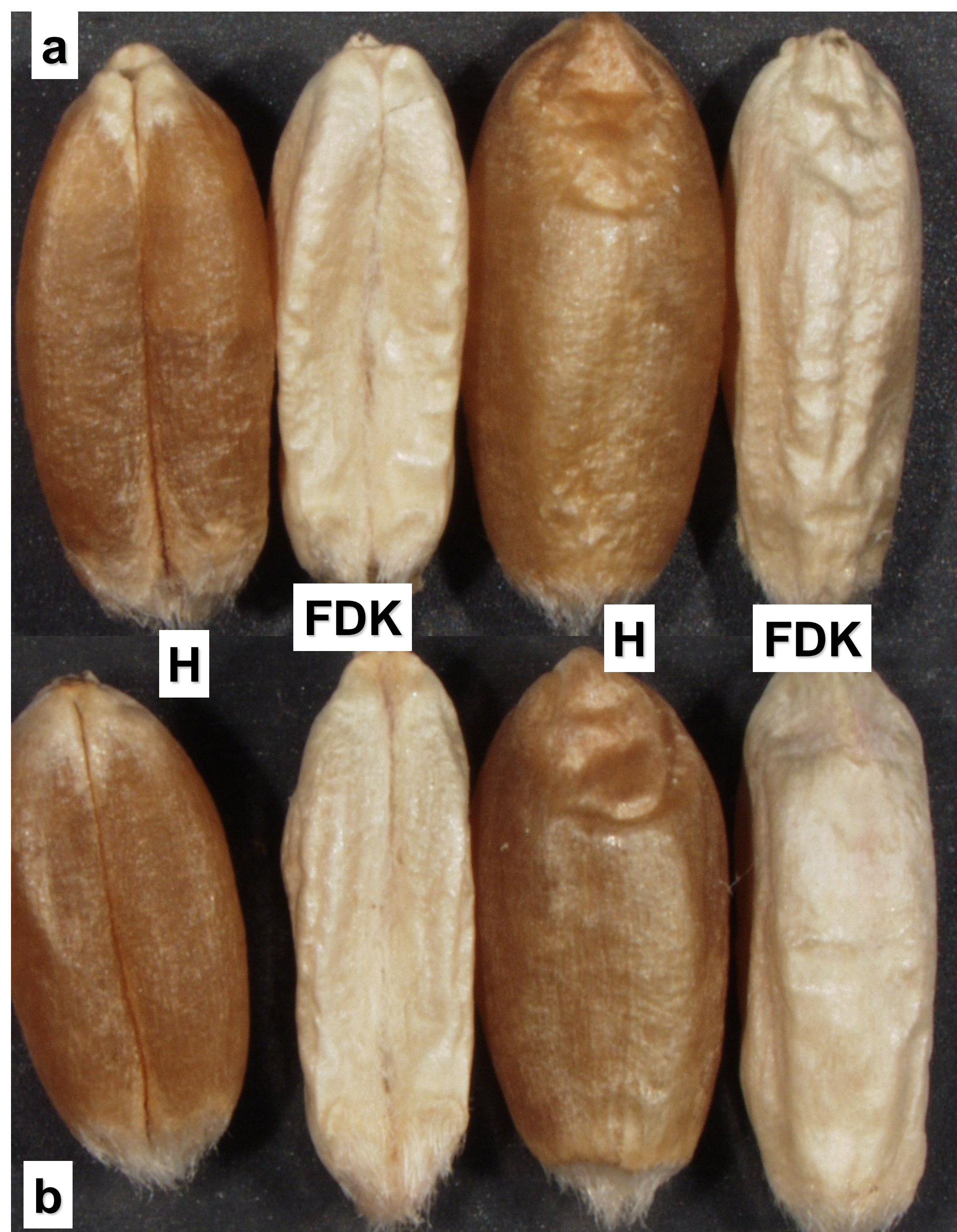


Fusarium Head Blight (FHB) of Cereals

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*



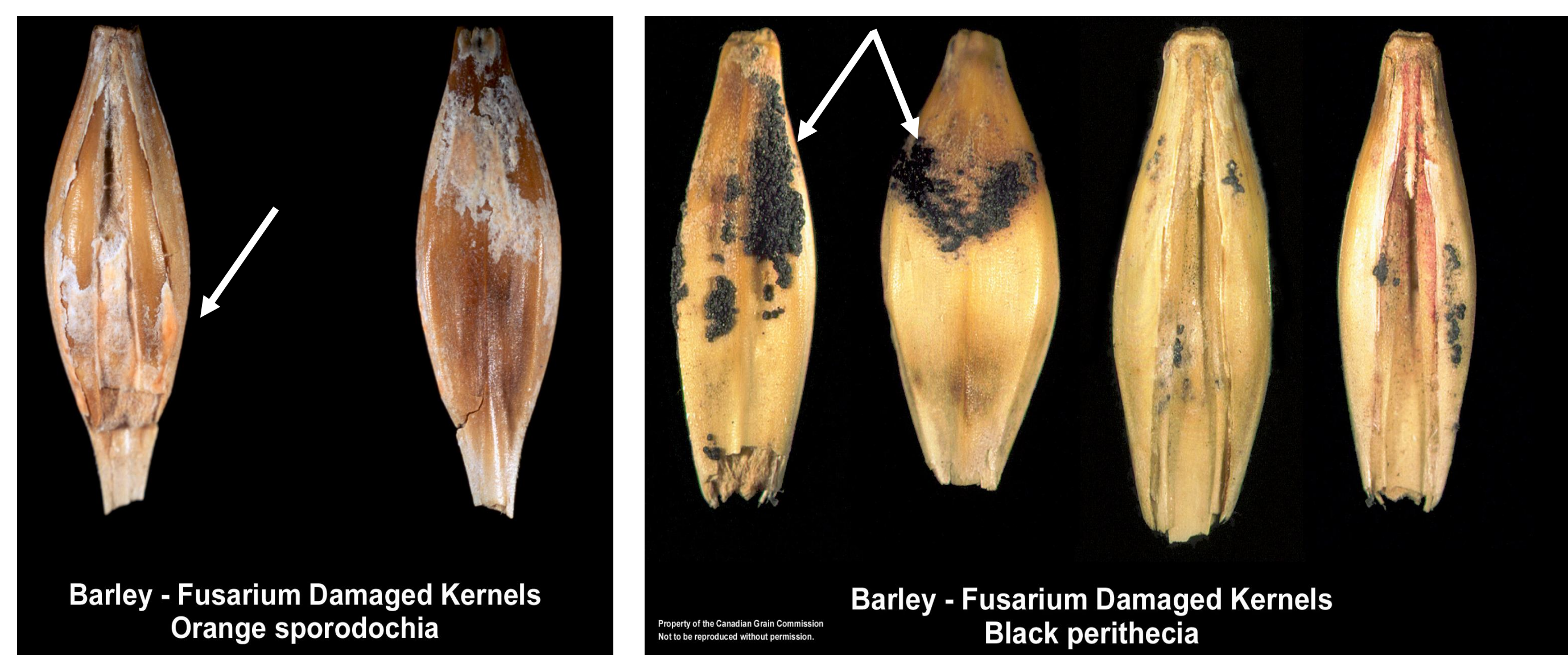
Canadian Prairie Spring (a) and Canadian Western Red Spring (b), showing fusarium damaged kernels (FDK) due to *Fusarium graminearum*, and healthy kernels (H)



FDK 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*



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)



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



Orange wheat blossom midge damage in wheat



Brownish discoloration (kernel smudge) in barley caused by spot blotch fungus infection



Seed infection with the glume blotch pathogen can also produce FDK-like symptoms



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



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