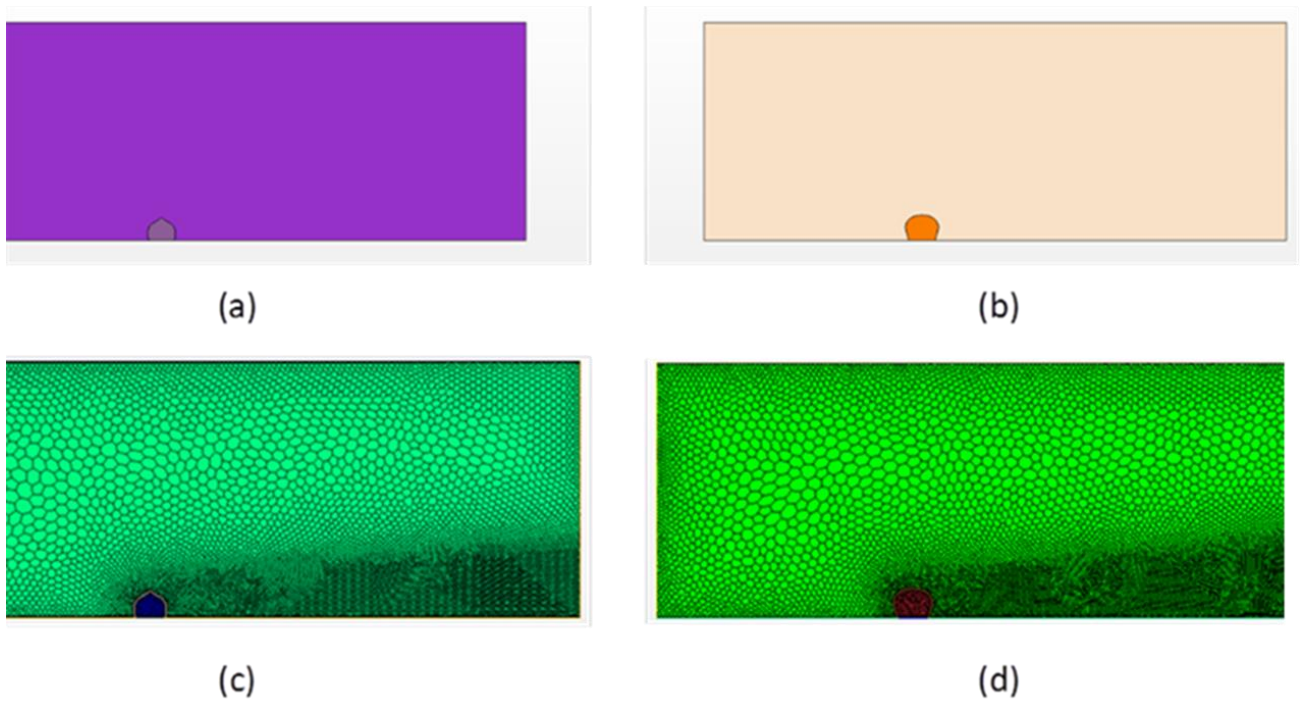


**Figure S1.** Kernel acquisition process: (a) reconstructed ear for control variety (B73/Mo17 F1 ear); (b) reconstructed shape of the cob for pointed variety (Nero Spinoso ear).



**Figure S2.** Setup Model: (a) geometry view for pointed maize (Nero Spinoso seed) ; (b) geometry view for control maize (B73/Mo17 F1 seed); (c) mesh generated for pointed maize variety; (d) mesh generated for control maize.