

How to Hand Pollinate Wheat

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Wheat grows wild in the Fertile Crescent. Crops domesticated in dry regions tend to be self-pollinating to protect the pollen from drying winds on its brief journey from the male anther to the female ovule for fertilization.



1. The stalk swells with an emerging wheat spike.



2. The 'mother' spike is ready when the spikes are well-formed.



3. Snip off the awns on each spikelet.



4. Oh so carefully, pinch off the middle anther. Gently slip around the leaflet on the two sides and pinch off the side anthers.



5. Each spikelet has three florets each with an anther. The delicate branching stigma reaches up seeking pollen. When male-anther sheds pollen, and it is received by the stigma, the roundish creased ovule grows into a kernel.



6. Label a wax bag with the date. Cover the exposed mother-spike with the baggy. Seal with a paperclip.



7. Pollen on the father-spike is ready about a week later when an center anther pokes out of the spike.



8. Select a father-spike from a plant with traits you want. Snip snip snip off the awns.



9. Watch the pollen-laden anthers rise up, seeking the female.



10. Insert the exposed male into the bagged female. Shake in the pollen.



11. Seal the bag and date. The hand-pollination process is complete!