

Heritage Wheat

- seed start-up and maintenance

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www.wholegrainconnection.org

Ancient landrace wheat

Until 1900. Old World varieties with variation according to climate, generally waist to shoulder high

US

Modern wheat

1900 -1950. Designed for refined flour milling & accommodation of climate by breeding with landraces.

1950 to date; also designed for conventional agriculture from landraces, but with short knee-high stature from mutated wheat in the breeding.



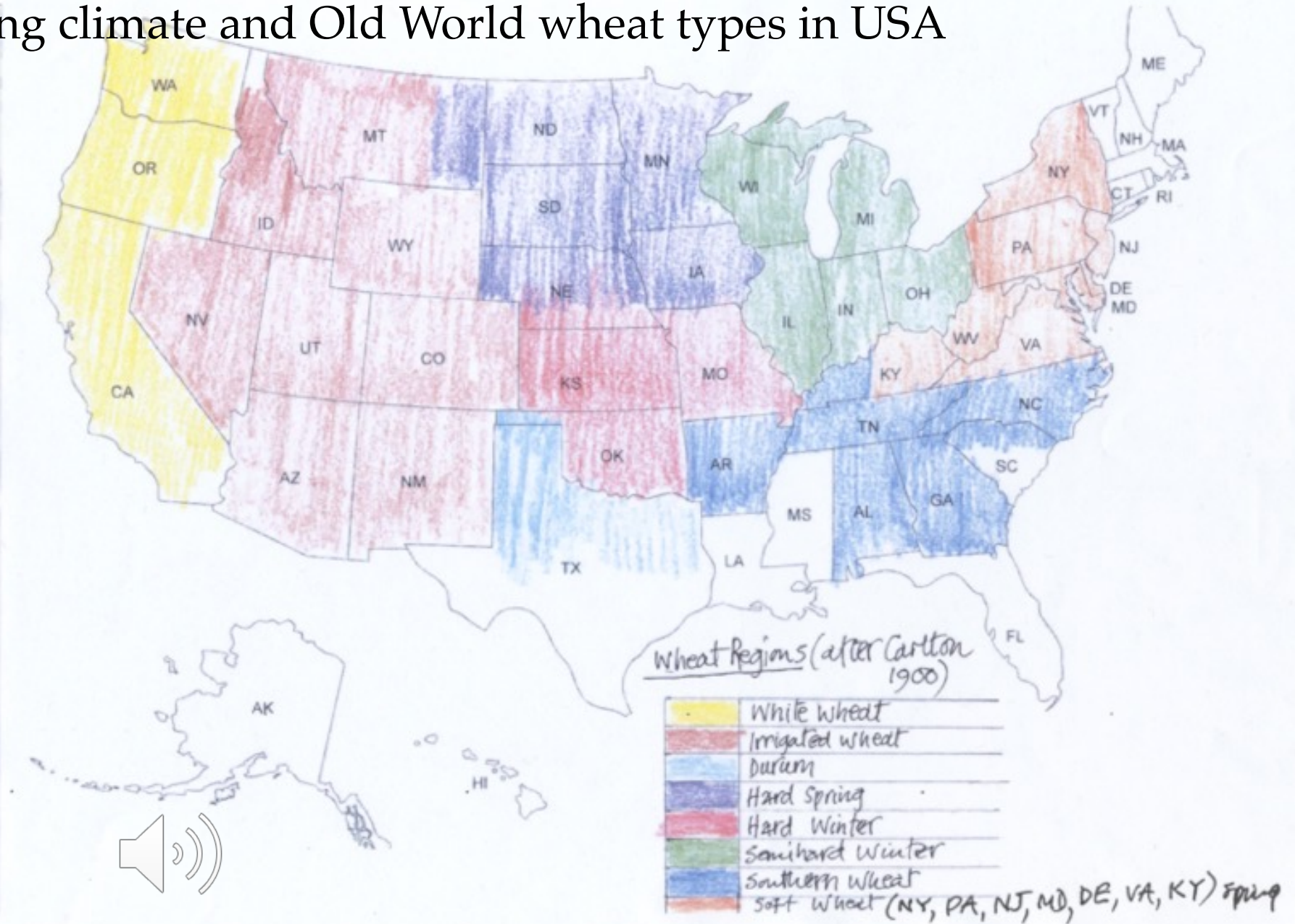
Approximately matching climate and Old World wheat types in USA

White wheat, easily sprouts in the ear, so needs dry summer ripening – Western Mountain States

Red wheat, tolerant of summer humidity while ripening. Hard red wheat grows best in plains states.

Soft red grows further east where rainfall is greater.

Durum is a spring type and can be planted in spring after severe winter or in fall if winter is warm. More widespread now than in 1900.



Wheat self pollinates & grows true to type

There are occasional exceptions due to failure of florets to produce pollen. This allows for crossing, especially if there is pollen from compatible wheat or grass species growing nearby.

Purple durum seems to cross more readily than other varieties.



Heritage wheat varieties

– non-proprietary

- Variety selected from an ancient Old World landrace mixture - there is no native American wheat
 - Heirloom selection, handed down in a family
 - Modern PVP variety developed more than 20 years ago - plant variety protection, PVP, lasts for 20 years
 - Listed and available at USDA seed bank
- www.ars-grin.gov
- Can be trademarked and quality controlled
 - Cannot be grown exclusively



Sources for heritage wheat seed?

Start-up seed packets.

Heritage wheat seed, enough for garden plots – hand planting & processing

- *Seed sellers,*
- *Seed saving networks: Heritage and Landrace Grain Network, Seed Savers*
- *USDA seed bank, plant germplasm: www.ars-grin.gov*
- *Other farmers & gardeners*

Beyond start-up.

Heritage wheat seed, enough for equipment use.

25 – 200 pounds for 0.25 – 2.5 acres

- *Seed sellers: www.wholegrainconnection.org*
- *Farmers already growing heritage wheat seed – check that you are buying good seed!*



Check list for heritage start-up seed

- Known origin and name or USDA accession number for seed
- Non-proprietary (not modern PVP)
- Matches your local climate
- Small amount – build your own stock rather than buying seed for large acreage initially.
- Full sized grains – looking alike!
- No broken grains
- No dirt
- No foreign seeds of wheat, other crops or weeds
- Germination above say 90% (*kitchen style*)
- Stored clean and dry



Growing heritage wheat for seed and identity preserved, IP, food grain

- *Planted with seed of known origin & purity*
- *Grown where there has been no grain crop for at least 2 years*
- *Grown within 10 feet or enough separation from other varieties, so that there is no mechanical mixing of varieties at planting or harvest*
- *Rogued area to be harvested for next year's seed. Area to be 5% of total for third party inspection & quality assurance*
- *Grown with organic practices*
- *Planted with clean planter*
- *Harvested with clean combine harvester*
- *Cleaned in well cleaned-out grain cleaning equipment*
- *Packaged in clean packaging line*
- *Stored clean and dry away from rodents and insects*



Third party certification of heritage seed

- *Organic certification (CCOF and others)*
- *Heritage Grain Quality Assurance by CCIA (California Crop Improvement Association)*
- *Harvester clean-out certification – County Ag Commissioner / CCIA*
- *CDFSA seed seller registration - requires lab determined purity and germination displayed on label, also source address*



Heritage Grain QA Program by CCIA – start-up seed, IP & purity maintenance



- *Sign up as a CCIA member within short time of planting at www.ccia.ucdavis.edu*
- *Expect part of field to be inspected for uniformity of crop, for a fee.
This inspection reveals whether planted seed was pure, and planter was clean!*
- *Before harvesting: Clean out combine harvester and have it inspected by local County Ag Commissioner*
- *Send seed to grain cleaning & bagging facility that is routinely inspected for clean practices and certified by CCIA; they also send samples for lab test values and prepare required CCIA labels*
- *Variety will be given a CCIA number for future reference*

After purchase of heritage wheat seed?

- *Everything presented here about the choice and maintenance of heritage wheat seed applies to the farming of it into perpetuity!*
- *The process of caring for your own wheat seed looks daunting, but it is truly common sense. The benefits of a clean and orderly processing routine will surely pay off in the production of a highly desirable and much wanted food and seed crop.*

