

And Spelt in Its Place

St. Peter's Episcopal Cathedral
June 12, 2021

Isaiah, Chapter 28

23 Listen and hear my voice; pay attention and hear what I say.

24 When a farmer plows for planting, does he plow continually? Does he keep on breaking up and working the soil?

25 When he has leveled the surface, does he not sow caraway and scatter cumin? Does he not plant wheat in its place, barley in its plot, and spelt in its field?

26 His God instructs him and teaches him the right way.

27 Caraway is not threshed with a sledge, nor is the wheel of a cart rolled over cumin; caraway is beaten out with a rod, and cumin with a stick.

28 Grain must be ground to make bread; so one does not go on threshing it forever. The wheels of a threshing cart may be rolled over it, but one does not use horses to grind grain.

29 All this also comes from the Lord Almighty, whose plan is wonderful, whose wisdom is magnificent.

The Importance of Grain Crops

20,000 – 17,000 years ago: gathering and consumption of grass seed

11,000 – 10,000 years ago: **Eight Founder Crops** – eight plants that arose in the Fertile Crescent that form the basis of origins of agriculture, including einkorn wheat, emmer wheat, and barley; lentils, peas, chickpeas, and bitter vetch; and flax or linseed.

5,000 years ago: archeological evidence of spelt growth and consumption.

Today: nearly half of the world's protein intake comes from cereal grains (rice, wheat, corn, and barley).

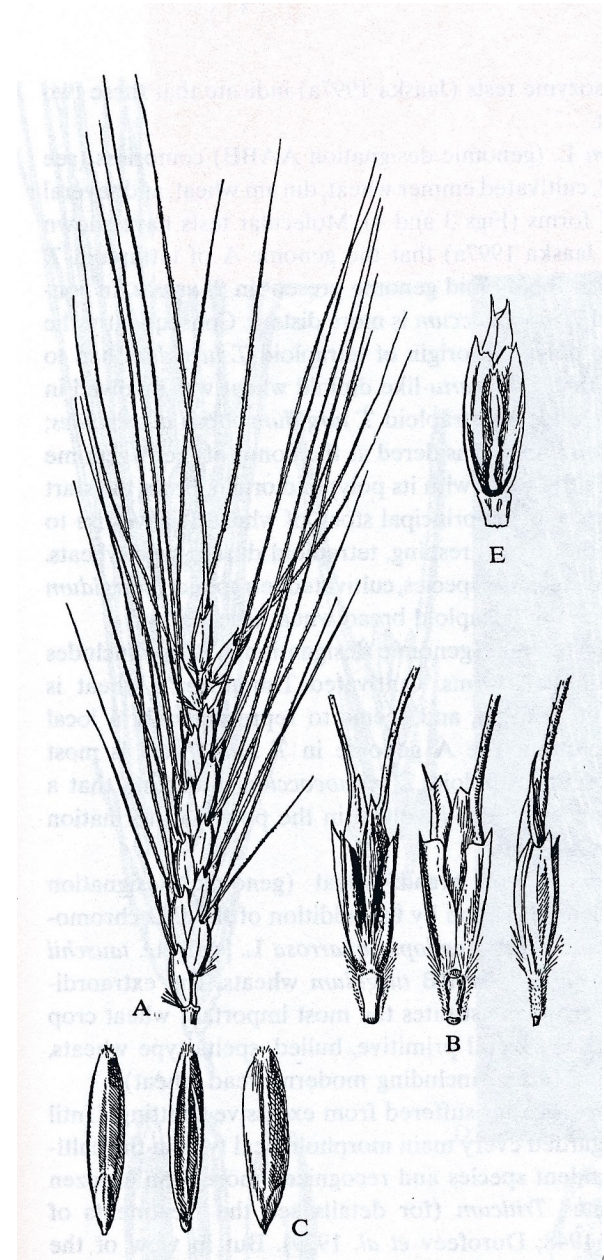
Wheat Family Tree

Einkorn (wild and cultivated)

– the Mother Wheat,
first domesticated wheat

Diploid: 14 Chromosomes

Very weak gluten



Wheat Family Tree

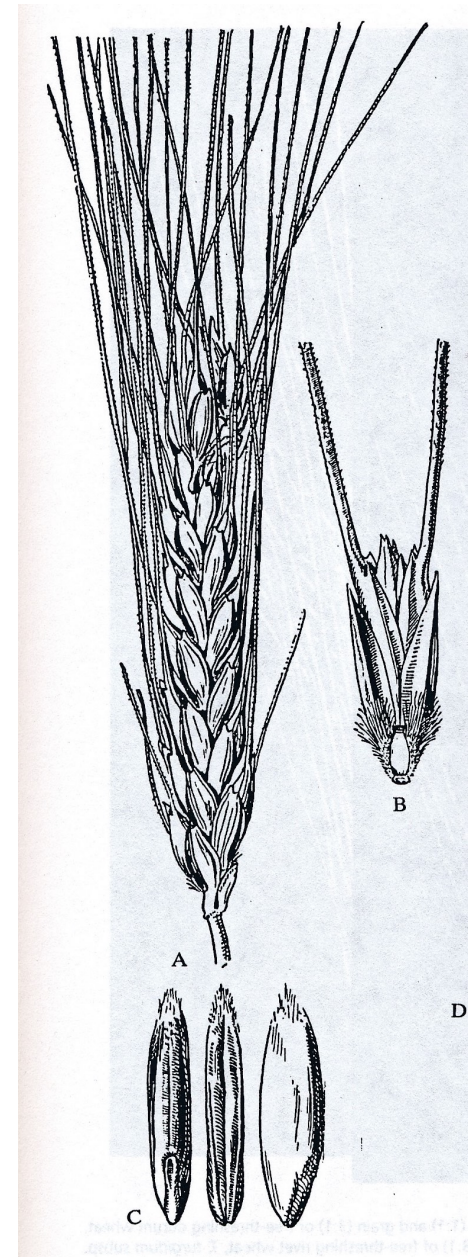
**Emmer (wild and cultivated)
Durum Wheat**

Haploids: 28 chromosomes

Durum likely is a domesticated wild Emmer/Einkorn cross and a relative of Spelt. Further domestication resulted in modern durum wheat.

Durum is primarily used to make pasta; Kamut[®] is a durum wheat

Neither has gluten appropriate to make modern bread



Wheat Family Tree

Spelt (cultivated)

Bread Wheat (cultivated)

Hexaploids: 42 chromosomes

Spelt is a hulled or husked wheat; the tightly clasped hulls must be removed for human consumption

Bread Wheat is hullless or “free threshing” – the hulls fall off at maturity



Traditional Threshing Methods

- **Beating** sheafs of grain against a crushing stone or a crushing lump of wood.
- **Trampling** grain spread on the threshing floor; the trampling would be done by a train of mules or oxen
- **Threshing with flails**, a type of traditional wooden tool with which one strikes the pile of grain until the seed is separated from the chaff.

Threshing Boards and Carts

Threshing with **threshing boards** or **carts with rollers** crushes the stems, breaks the some of the clasping husk.

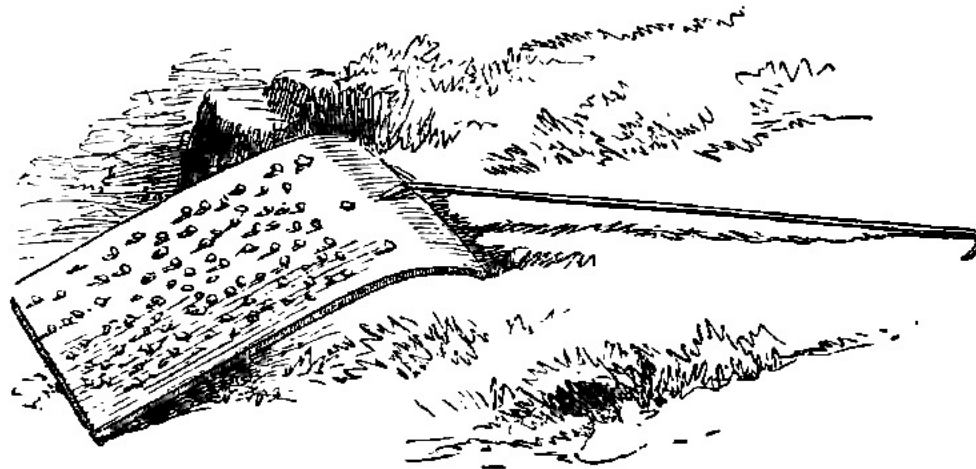
Boards and carts can be pulled by hand or horse/ox.

Both require winnowing as the final step to clean the grain.

Threshing Board

Moved in circles and figure-eights, the stone chips or blades embedded in the board cut the straw and the ear of wheat, separating the seed without damaging it.

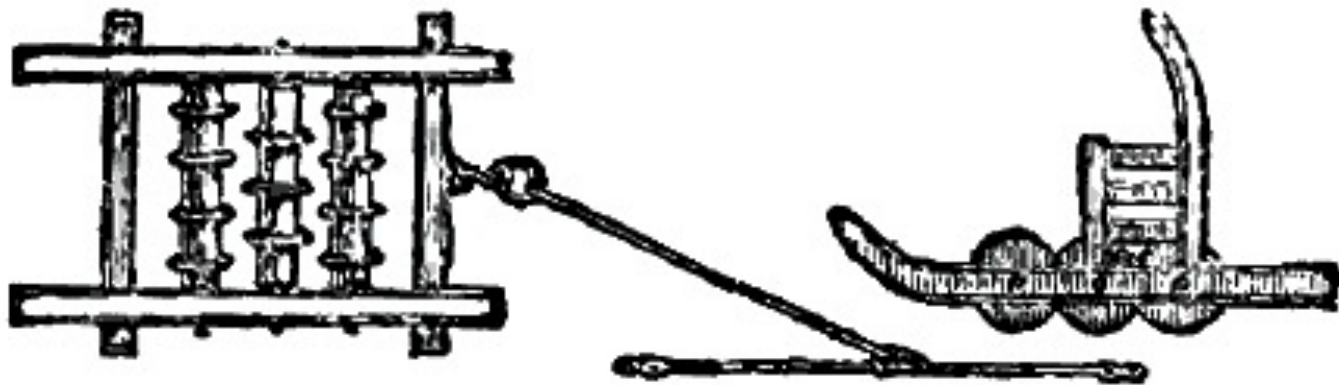
The threshed grain was then gathered to be cleaned by some means of winnowing.



Threshing Cart

The threshing cart was fitted with three to four rollers made of wood with wood or metal inset in each roller.

The husks and chaff were separated to one part of the threshing-floor, while the grain, still not entirely clean, was winnowed using sieves or baskets.



Threshing Output

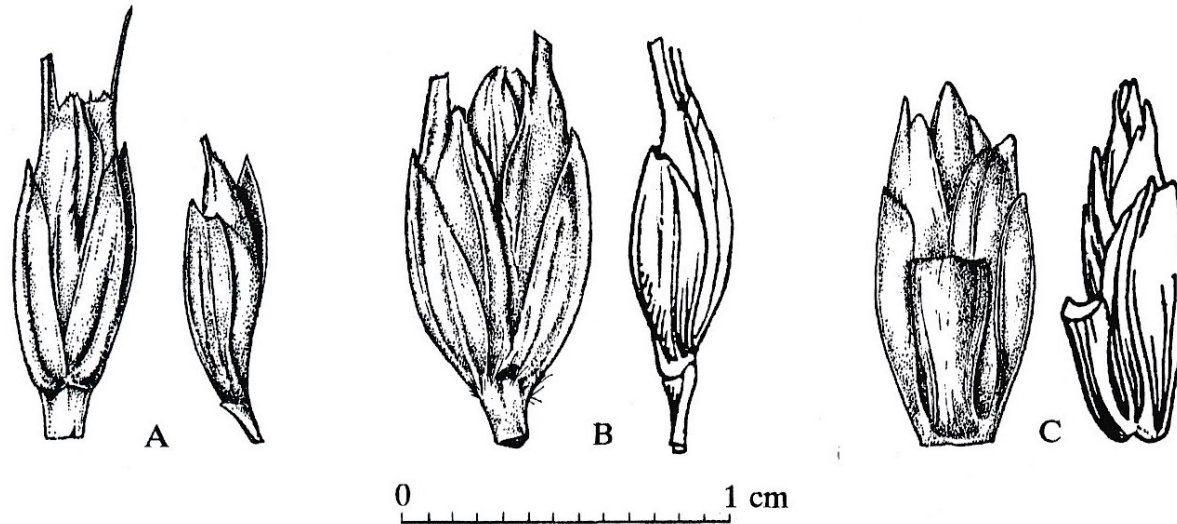
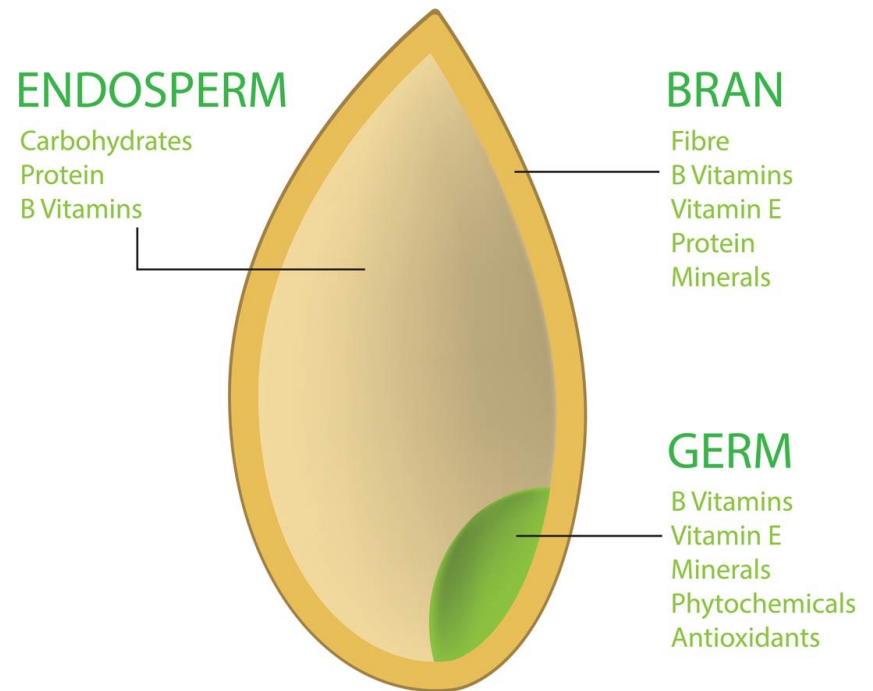


Fig. 6 The threshing products of the three main types of cultivated hulled wheats: A – Einkorn, *Triticum monococcum* subsp. *monococcum*. B – Emmer, *T. turgidum* subsp. *dicoccum*. C – Spelta, *T. aestivum* subsp. *spelta*. (Modern material.)

The clasping hulls remain on the kernels and require additional threshing and winnowing to clean.

Parts of a Wheatberry*

- **Husk:** The husk is the outer protective coating of each individual grain.
- **Bran:** The bran is another protective coating around the grain.
- **Germ:** This is the inner-most part of the grain.
- **Endosperm:** This is also called the kernel.



* Wheat berry or wheatberry is another term for wheat kernel.

Baking Properties of Spelt

- Nuttier and more complex in flavor than standard whole-wheat flour.
- Spelt flour is comparable to a soft wheat and is best for pastry, quick breads, muffins, and cookies when used alone.
- When making bread, combine 25% to 50% spelt flour with a high protein bread flour for structure and support.
- Be careful not to over knead or over mix.

Let's Bake: Spelt Flat Bread

Ingredients

1 tsp yeast
1 ¼ C warm water
1 C spelt flour
2 C bread flour
1 ½ tsp salt
1 ½ tbs olive oil

Instructions

1. Preheat a pizza stone in the oven at 450F for at least 1 hour.
2. Put warm water in a large bowl, sprinkle the yeast over the water, and stir to dissolve.
3. Stir the sponge 100 times, always in the same direction to activate the gluten.
4. Stir the sponge 100 times, always in the same direction to activate the gluten.
5. Let the sponge rest for at least 10 minutes or up to 2 hours.
6. Stir salt and olive oil into the sponge. Mix well.
7. Add the remaining flour ½ cup at a time until the dough is too stiff to stir. (You may not use it all.)
8. Turn out onto a floured surface and knead for 8 to 10 minutes, until smooth and elastic.
9. Put the dough into a lightly oiled bowl, cover, and let rise until doubled in size, approximately 1 ½ hours.
10. Gently punch down dough. Divide the dough into 8 small balls. Flatten each piece with floured hands.

Spelt Flat Bread (cont.)

11. Using a cookie sheet or pizza peel, slide 2 breads onto the pizza stone. Bake for approximately 5 minutes, until each bread balloons. If the pizza stone is not hot enough, the breads may not “bloom” completely.

12. If they bloom you have pita breads. If they don't, you'll have a flat bread to fold around a filling.

13. Wrap the baked breads in a large towel to keep them warm and soft while baking the remaining breads.

Fill/wrap using an assortment of meat, cheese, chopped greens, veggies, fresh and dried fruits, and nuts. Top with your dressing/spread of choice.

Cast of Characters

Lesson from Isaiah: Rev. Donna Gleaves

History of the Wheat Family: Gail Nickel-Kailing,
GoodFood World

Fresh Ground Spelt: Conservation Grains, Choteau.

Miller: Judy Cornell

Flat Bread Bakers and Conversationalists: Cast of
Thousands (or maybe 9...)