Qualities of Einkorn, Emmer, and Spelt

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Einkorn

- Favored for adding excellent flavor to foods.
- Suitable for baked products, some good for bread.
- Higher lipid content than bread wheat (4.2 vs. 2.8 g/100g).
- Usually high in minerals although low in Cadmium.
- Usually higher in protein, lutein, and Vitamin E; Lower in total phenols.
- Has same allergenic proteins as other wheats but may be lower in some of the gliadins that cause responses in those with celiac disease: more research is needed.
Emmer

- Favored for adding excellent flavor to foods.
- Recommended for children and new mothers in Ethiopia and for diabetics in India.
- Gluten varies from very low to higher than bread wheat: bread making properties vary but are usually lower than bread wheat. Missing some gliadin proteins.
- Usually has higher minerals, higher fiber and lower glycemic index.
- Often has higher antioxidants (total phenolics and flavonoids) and protein. Not high in carotenoids.
- Often has higher phytic acid concentration.
The species is a known source of disease and pest resistance traits (common bunt, stem rust, leaf rust, powdery mildew, Septoria Leaf Blotch, Loose smut, Tan Spot, Russian wheat aphid, Hessian Fly).

Asian and African types appear to be more drought tolerant.

Some varieties have shown tolerance to higher soil salinity.

Alternate source of dwarfing trait.
Spelt has gluten and similar protein composition to bread wheat but reduced bread making quality.

Higher lipid and unsaturated fatty acid content.

Some minerals tend to be higher in spelt: Fe, Zn, Mg, P. This is especially true of the bran.

Spelt has less phytic acid than bread wheat.

Protein may be higher and fiber appears to be lower in spelt than in bread wheat.
Fig. 1 in Zhao, F.J. et al. 2009. Variation in mineral micronutrient concentrations in grain of wheat lines of diverse origin. J. Cereal Sci. 49:290-295.

