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.

Emmer

- 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

- 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.

Variation!

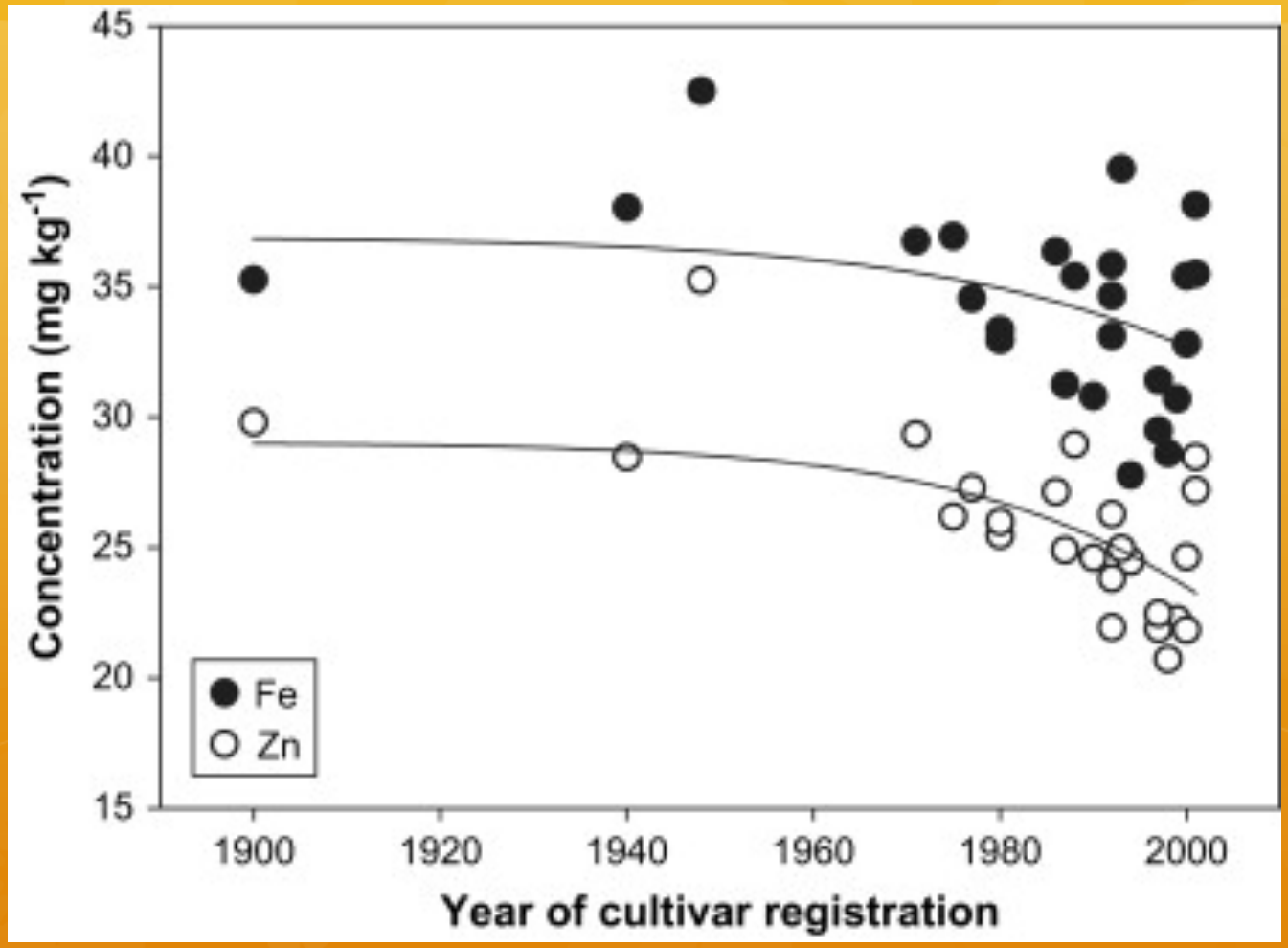

Fig. 1 in Zhao, F.J. et al. 2009. Variation in mineral micronutrient concentrations in grain of wheat lines of diverse origin. J. Cereal Sci. 49:290-295.

Suggested References

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