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Best Management Practices for Corn Production in South Dakota: Corn Calendar and Troubleshooting Guide

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CHAPTER 15
Corn Calendar and Troubleshooting Guide

Figure 15.1. Corn production calendar

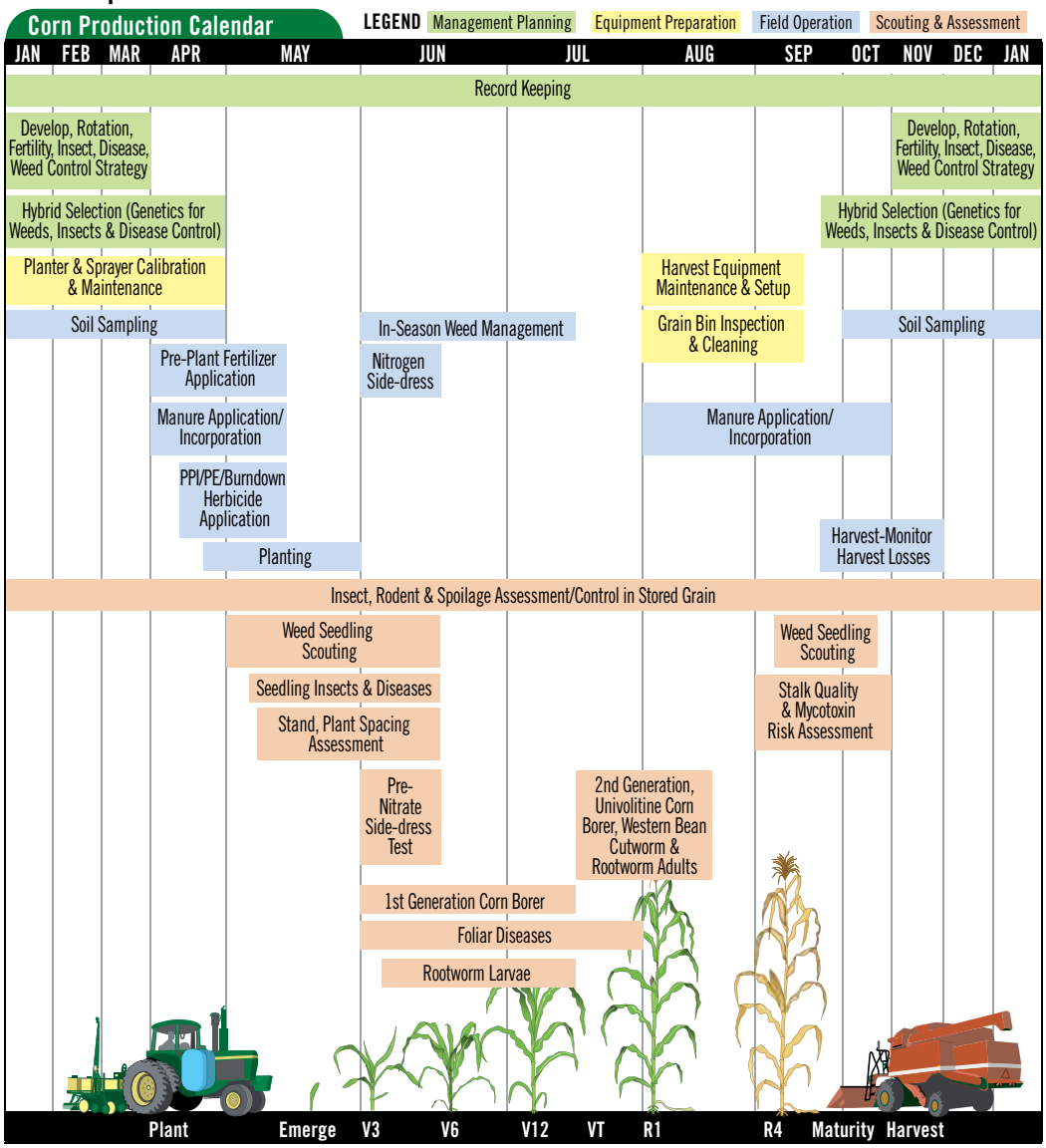
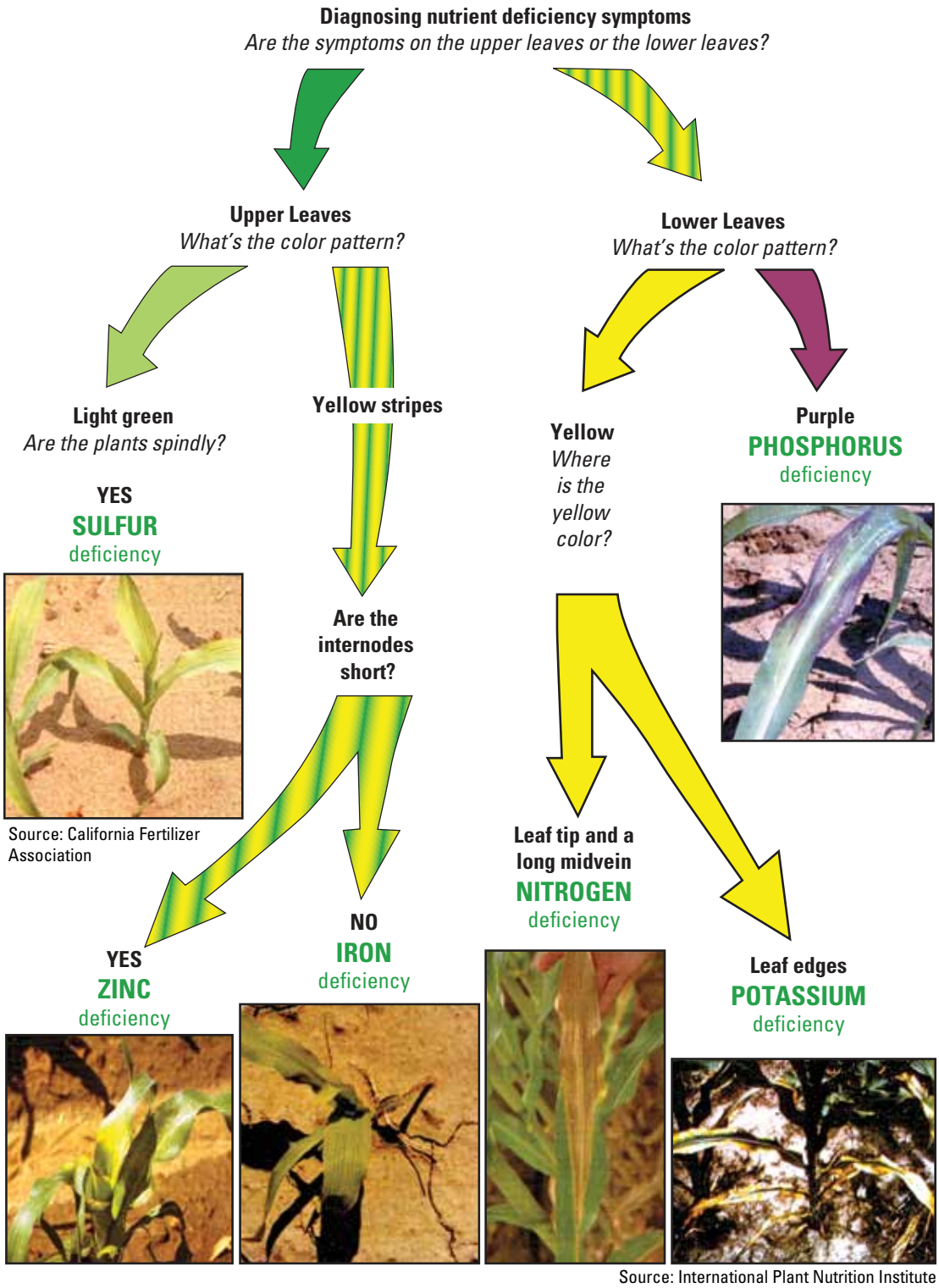


Table 15.1. Corn troubleshooting guide	
Symptoms	**Suspected problem**
Before emergence	
Corn does not emerge	
No seed was planted	Empty planter box Clogged delivery system
Seed not sprouted	No seed Fertilizer injury (too much N and K placed with seed) Too dry kernels not swelled Too cool, swelled but not sprouted
Rotted seed	Dead seed or Seed Rot
Seed eaten or dug up	Insects, birds, rodents
Emergence to V6	
Rotted seed or seedlings	Seed/seedling disease
Seedlings emerge then die	Seedling disease Waterlogged soil
Sprout with twisted leaves	Soil crust or cloddy soil Seed planted too deep Herbicide damage
Poor seedling vigor/slow growth	Low fertility Too cool or dry
Pale green-yellow color	N or S deficiency Water logged
Leaf edges yellow or dead	K deficiency
Purple or reddish color	P deficiency or roundup injury
White striping	Fe deficiency
Broad white area leaf center	Zn shortage
Leaves rolled and wilted	Water deficiency
Plants cut off at ground level	Cut worms
V6-tasseling	
Plants lean or fall over	Rootworm
Stalks break off	Corn borer
Leaves shredded	Hail injury
Silking to maturity	
Delayed silking	Population too high, or drought Shortages of N or P
Silks eaten off	Rootworm or grasshoppers
Large irregular eaten (field edges)	Grasshoppers
Kernels tunneled and eaten	Corn borer, corn sap beetles
Premature dying individual plants	Stalk rot Corn borer damage
Dying of plants in small areas	Drought Stalk rot
Barren stalks	Population too high Low fertility Silks eaten by insects Maize dwarf mosaic
Full cob only scattered kernels	Silks eaten by insects Drought
Maturity to harvest	
Stalks broken above the ear	Corn borer
Stalks broken below the ear	K deficiency Stalk rot
Ears dropped off	Corn borer
(Adapted from Aldrich et, al., 1975)	

Figure 15.2. Corn nutrient deficiency diagnostics



Source: California Fertilizer Association

Source: International Plant Nutrition Institute

Additional Information and References

Aldrich, S.R., W. O. Scott, and E.R. Leng. 1975. Modern Corn Production. A&L Publications, Champaign, IL.

Reitsma, K.D., S.A. Clay, C.G. Carlson, and D.E. Clay. 2009. "Corn calendar and troubleshooting guide." Pp. 121-24. In Clay, D.E., K.D. Reitsma, and S.A, Clay (eds). Best Management Practices for Corn Production in South Dakota. EC929. South Dakota State University, South Dakota Cooperative Extension Service, Brookings, SD.

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