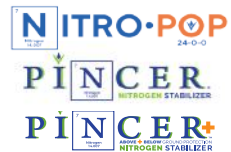











# ROLES OF NUTRIENTS IN CORN

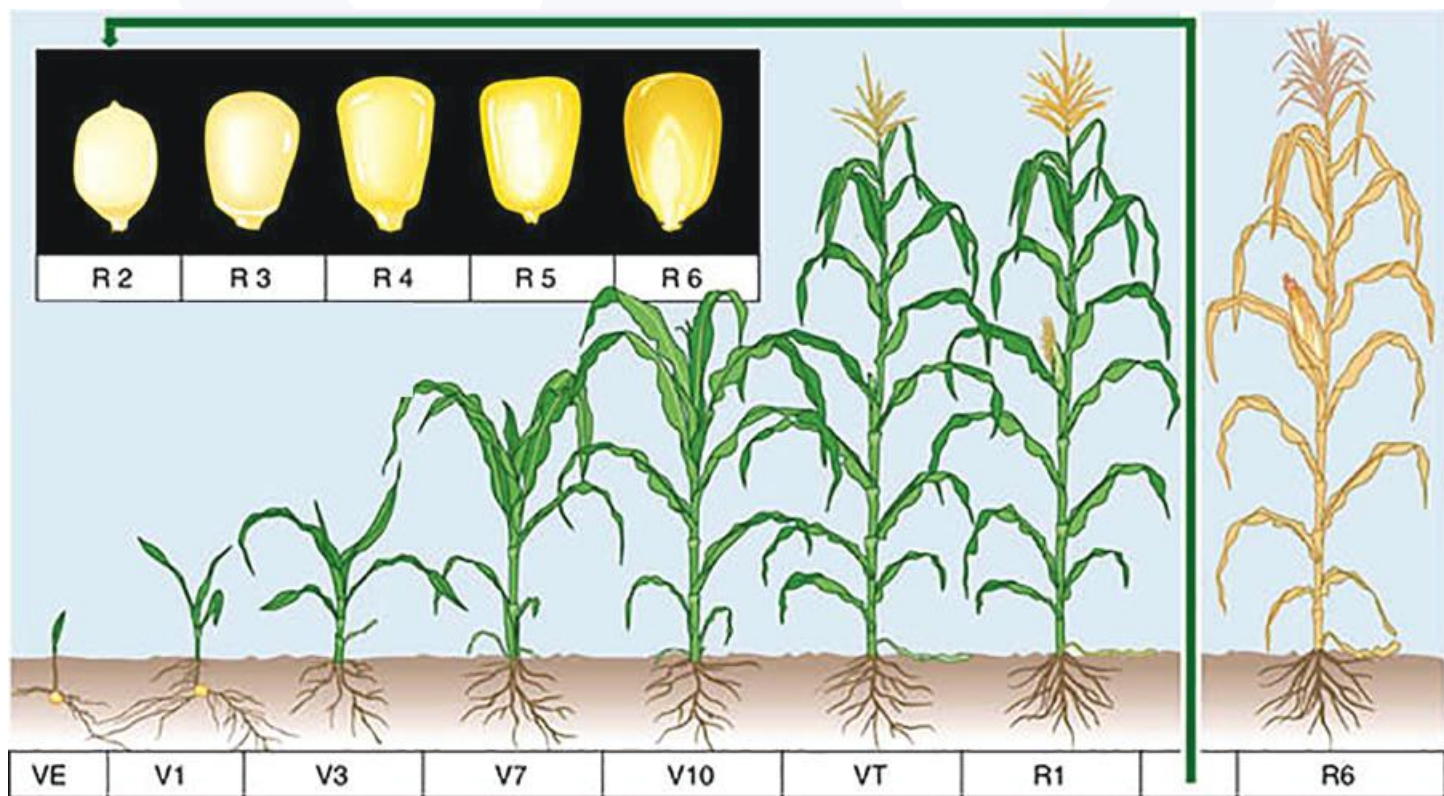
Nutritional Product	Window 1: VE - V3	Window 2: V4 - VT	Window 3: R1 - R6
	NITROGEN converts to amino acids, the building blocks for proteins. Utilized in producing necessary enzymes and structural parts of the plant.	NITROGEN converts to amino acids, the building blocks for proteins. Utilized in producing necessary enzymes and structural parts of the plant.	Stalk integrity during grain fill. Part of the stored protein in grain.
	PHOSPHORUS helps root growth cell energy transfer processes, photosynthesis, amino acid and protein synthesis.	PHOSPHORUS is important for formation of silk and ovules on ear. Cell energy transfer processes, photosynthesis, amino acid and proteins.	PHOSPHORUS is needed for cell energy processes, photosynthesis, amino acids and proteins. Helps with grain yield and stalk strength.
	POTASSIUM aids in enzyme activation, promotes root growth and growth of new tissue.	POTASSIUM aids in enzyme activation, photosynthesis, plant water regulation. Helps improve disease tolerance	POTASSIUM improves grain yield and stalk strength.
	SULFUR is utilized in protein synthesis, component of some amino acids. Important in enzyme synthesis.	SULFUR is utilized in protein synthesis, component of some amino acids. Important in enzyme synthesis.	SULFUR is utilized in protein synthesis, component of some amino acids. Important in enzyme synthesis.
	BORON aids in the translocation of sugars and influences cell development.	BORON aids in the translocation of sugars and influences cell development.	BORON is important for pollination and grain fill.
	ZINC is an enzyme activator, stimulates root and shoot growth and chlorophyll production.	ZINC is an enzyme activator, stimulates root and shoot growth and chlorophyll production.	ZINC is an enzyme activator, stimulates root and shoot growth and chlorophyll production.
	MANGANESE aids in enzyme activation.	MANGANESE aids in enzyme activation.	MANGANESE aids in enzyme activation.
	IRON aids in chlorophyll development and formation and is an enzyme activator.	IRON aids in chlorophyll development and formation and is an enzyme activator.	IRON aids in chlorophyll development and formation and is an enzyme activator.
	MAGNESIUM is the central element in chlorophyll molecule transport of phosphorus, enzyme activation.	MAGNESIUM is the central element in chlorophyll molecule transport of phosphorus, enzyme activation.	MAGNESIUM is the central element in chlorophyll molecule transport of phosphorus, enzyme activation, translocation of starch, needed for synthesis of oil in grain.
	CALCIUM aids in emergence from soil, nitrate uptake and metabolism, component of cell walls.	CALCIUM aids in nitrate uptake and metabolism, component of cell walls.	CALCIUM aids in nitrate uptake and metabolism, component of cell walls.
	MOLYBDENUM is a component of nitrate reductase enzyme that is required for nitrogen utilization.	MOLYBDENUM is a component of nitrate reductase enzyme that is required for nitrogen utilization.	MOLYBDENUM is a component of nitrate reductase enzyme that is required for nitrogen utilization.



# CORN DEVELOPMENT

## CORN GROWTH STAGES

- ✦ **VE: Emergence stage**
- ✦ **Vn: nth Leaf stage**
- ✦ **VT: Tasseling stage**



Graphic courtesy of University of Illinois Extension ([extension.illinois.edu](http://extension.illinois.edu))



CROPEXCELLENCE.COM