Summer Season Agronomy

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Agenda

- Starting With The Basics
- Foliar Feeding
- Fungicides – Who is having "fun"
- Foliars @ Tassell and R3

Starting With The Basics

FROM THE GROUND UP!

MACRO'S

- pH-Ca
- Phosphorus: 15+ppm
- Potassium: 2%+ or 200ppm+
- Sulfur
- Nitrogen

Soil Sample Results

LAB NUMBER *462*	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent	RATE	PHOSPHORUS P_1 (WEAK BRAY) 1:7 ppm	RATE	PHOSPHORUS P_2 (STRONG BRAY) 1:7 ppm	RATE	OLSEN BICARBONATE P ppm	RATE	POTASSIUM K ppm	RATE	MAGNESIUM Mg ppm	RATE	CALCIUM Ca ppm	RATE	SODIUM Na ppm	RATE	pH SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED) % K	% Mg	% Ca	% H	% Na
55018	BOBCAT 1	3.9	H	12	L	17	L			238	H	452	VH	2536	M			5.3	6.0	24.8	2.5	15.2	51.1	31.2	
55019	BOBCAT 2	3.6	H	14	L	16	L			180	H	296	VH	1821	L			5.0	5.9	20.4	2.3	12.1	44.6	41.0	
55020	BOBCAT 3	3.2	M	34	VH	43	H			252	VH	174	M	2048	M			5.7	6.6	15.6	4.1	9.3	65.6	21.0	
55021	BOBCAT 4	2.8	M	15	M	17	L			200	H	280	VH	1958	M			5.2	5.9	19.3	2.7	12.1	50.7	34.5	
55022	BOBCAT 5	3.4	M	11	L	13	L			146	M	282	VH	2172	M			5.3	6.1	19.7	1.9	11.9	55.1	31.1	
55023	BOBCAT 6	3.5	M	21	M	27	M			150	M	296	VH	2460	M			5.5	6.5	20.5	1.9	12.0	60.0	26.1	
55024	BOBCAT 7	3.5	M	16	M	23	M			186	H	337	VH	2300	M			5.3	6.0	21.4	2.2	13.1	53.7	31.0	
55025	BOBCAT 8	3.7	H	13	L	20	M			246	VH	298	VH	2361	M			5.3	6.7	21.6	2.9	11.5	54.7	30.9	
55026	BOBCAT 9	3.8	H	8	L	20	M			232	H	415	VH	3713	H			6.1	6.6	26.3	2.3	13.1	70.6	14.0	
55027	BOBCAT 10	4.2	H	18	M	25	M			244	VH	268	VH	2089	M			5.2	6.1	20.3	3.1	11.0	51.5	34.4	

LAB NUMBER *462*	NITRATE-N (FIA) SURFACE ppm	SURFACE lbs/A	SURFACE depth (in)	SUBSOIL 1 ppm	SUBSOIL 1 lbs/A	SUBSOIL 1 depth (in)	SUBSOIL 2 ppm	SUBSOIL 2 lbs/A	SUBSOIL 2 depth (in)	Total lbs/A	SULFUR S ICAP ppm	RATE	ZINC Zn DTPA ppm	RATE	MANGANESE Mn DTPA ppm	RATE	IRON Fe DTPA ppm	RATE	COPPER Cu DTPA ppm	RATE	BORON B SORB. DTPA ppm	RATE	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmhos/cm	RATE
55018			0-6								10	L	1.5	M											
55019			0-6								10	L	1.5	M											
55020			0-6								6	VL	1.8	M											
55021			0-6								10	L	1.3	M											
55022			0-6								7	L	1.2	M											
55023			0-6								4	VL	1.3	M											
55024			0-6								9	L	1.9	M											
55025			0-6								10	L	1.4	M											
55026			0-6								11	L	1.1	M											
55027			0-6								12	L	1.9	M											

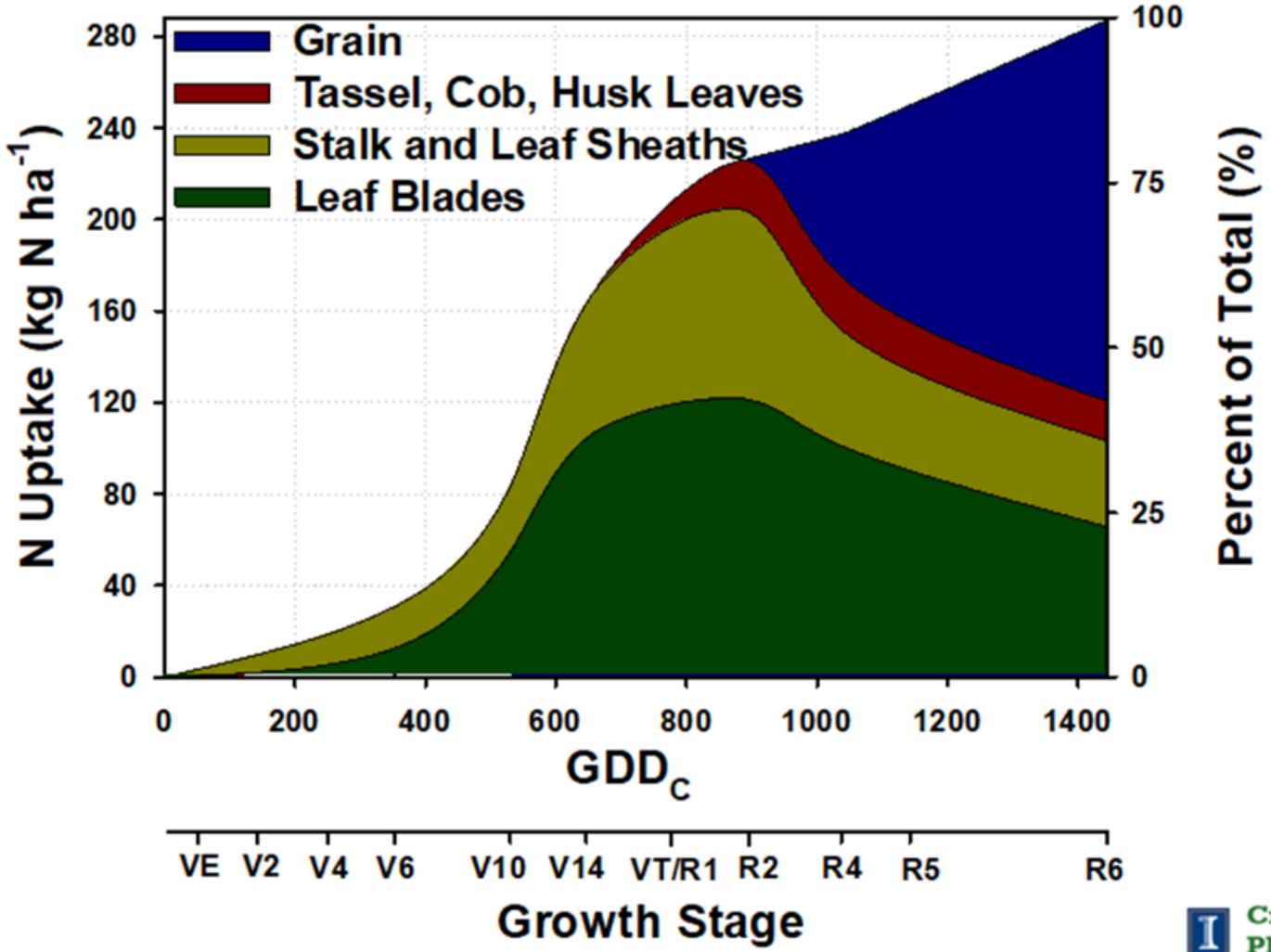
Tissue Sample Results

2025 Tissue Samples % Corn Deficient + Responsive			
Nutrient	Growth Stage		
	V4-V8	V10-V14	R1-R4
Nitrogen	67.8%	95.6%	80.5%
Phosphorus	54.6%	71.6%	27.9%
Potassium	43.2%	67.7%	48.2%
Sulfur	52.3%	95.6%	85.0%
Zinc	80.9%	94.6%	86.5%
Boron	73.2%	39.9%	75.8%
Manganese	79.4%	89.2%	77.9%

Historical Deficiencies for our Area

- Boron
- Sulfur
- Zinc
- Manganese

Nitrogen Uptake in Corn



6 hybrids representing transgenic insect protection grown in Champaign and DeKalb, IL in 2010 with yields of 220-240 bu/ac

Crop Physiology

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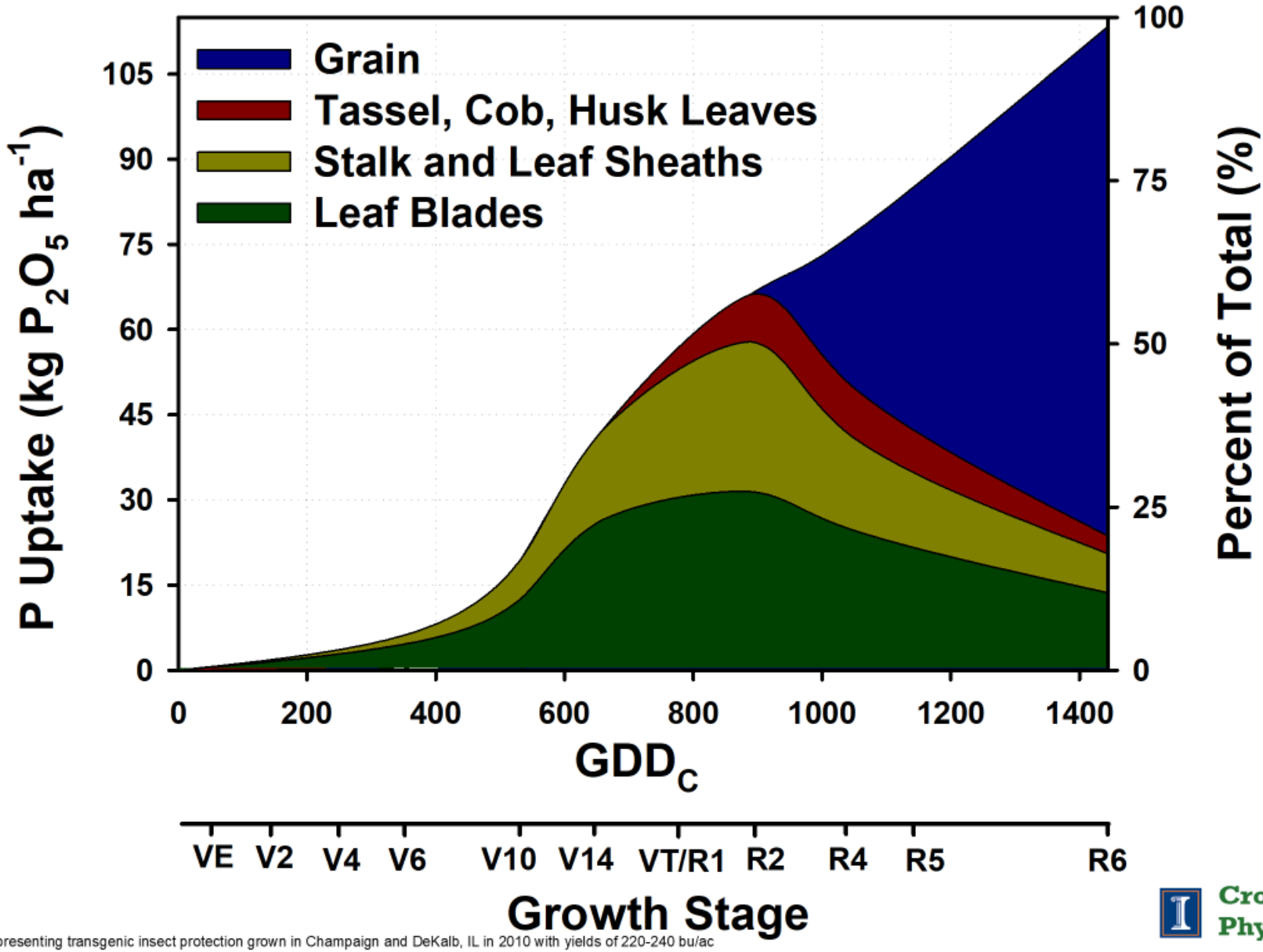
Phosphorus Uptake



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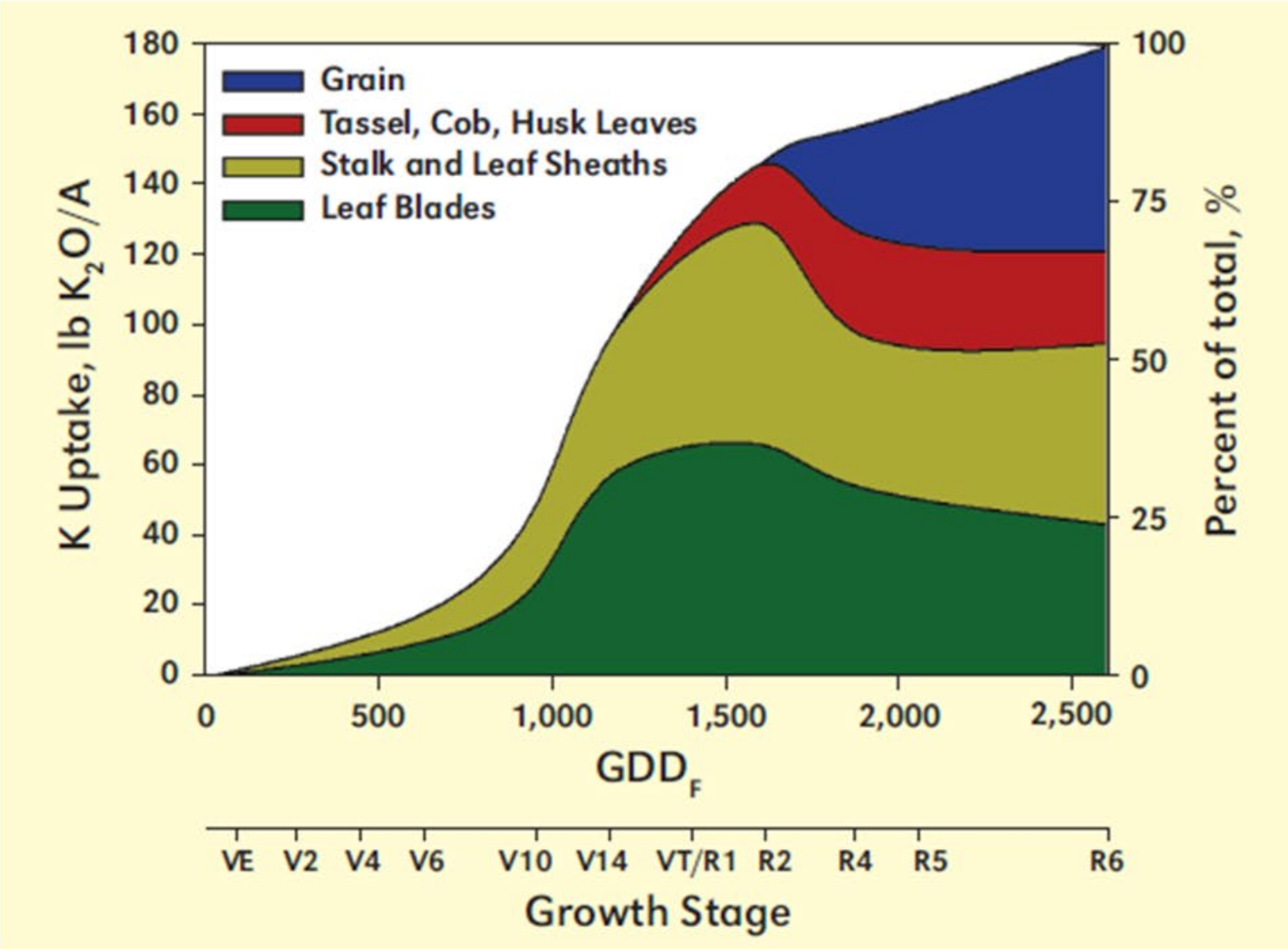
Crop Physiology

K in the plant: Uptake Curve - Corn



Source:
Bender et al,
2013.
Better Crops

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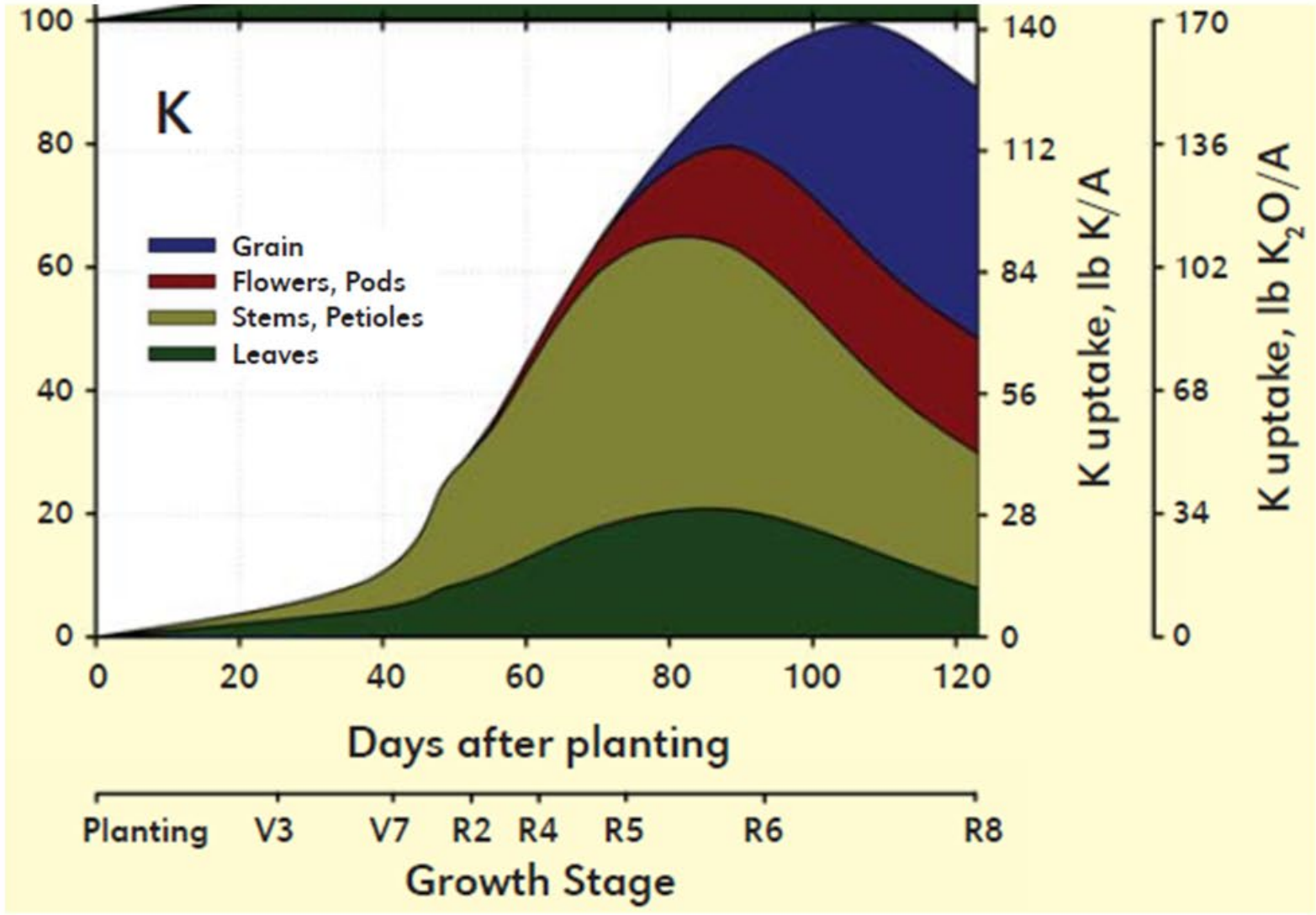
K in the plant: Uptake Curve - Soybeans



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Better Crops

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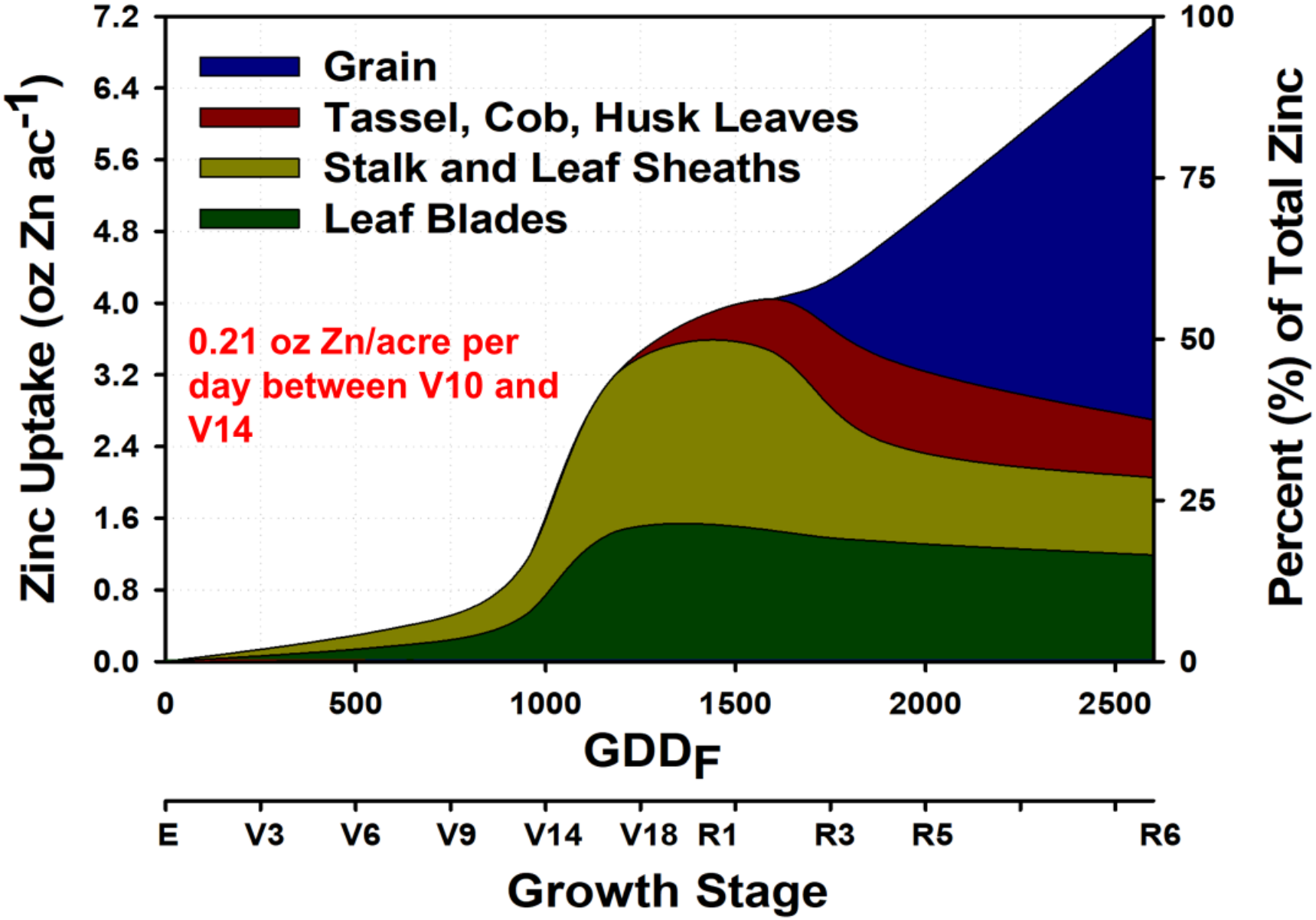
What does Zinc do ?

- Zn
  - Emergence, Carb, protein, chlorophyll production – cell development
  - Forklift for success.

Zn uptake & partitioning for 230 bushel corn



Average of 6 hybrids in Champaign and DeKalb IL in 2010

Agron. J. 105:161-170 (2013)

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Zn uptake & partitioning for 60 bushel soybean

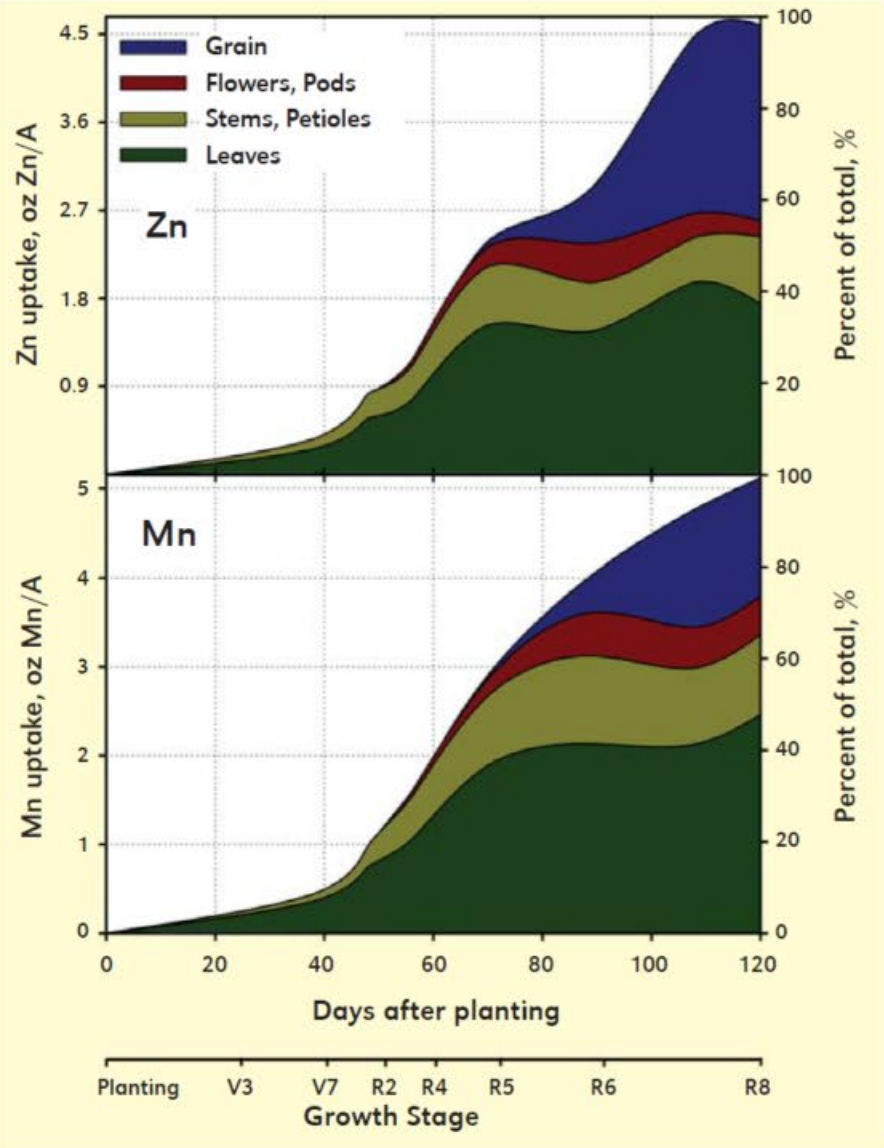

Table 1. Nutrient accumulation associated with producing, on average, 60 bu/A of soybean grain.

Parameter	Maximum total uptake	Removal with grain	Harvest index	Nutrient removal coefficient†
Macronutrients	lbs/A		%	lbs/bu
N	245	179	73	2.98
P	19	15	81	0.25
P_2O_5	43	35	81	0.58
K	141	57	41	0.95
K_2O	170	70	41	1.17
S	17	10	59	0.17
Mg	45	8	18	0.13
Ca	101	9	9	0.15
Micronutrients	oz/A		%	oz/bu
Zn	4.78	2.00	42	0.033
B	4.64	1.58	34	0.026
Mn	5.30	1.31	25	0.022
Cu	0.90	0.56	62	0.0093

† Multiply grain yield by nutrient removal coefficient to obtain the quantity of nutrient removal. Maximum total nutrient uptake, removal with grain, and harvest index (percentage of total nutrient uptake present in the grain) of macro- and micronutrients were averaged over treatments at DeKalb (2012 and 2013) and Champaign (2013).

Bender et al., 2015, Better Crops 99(2):7-10.

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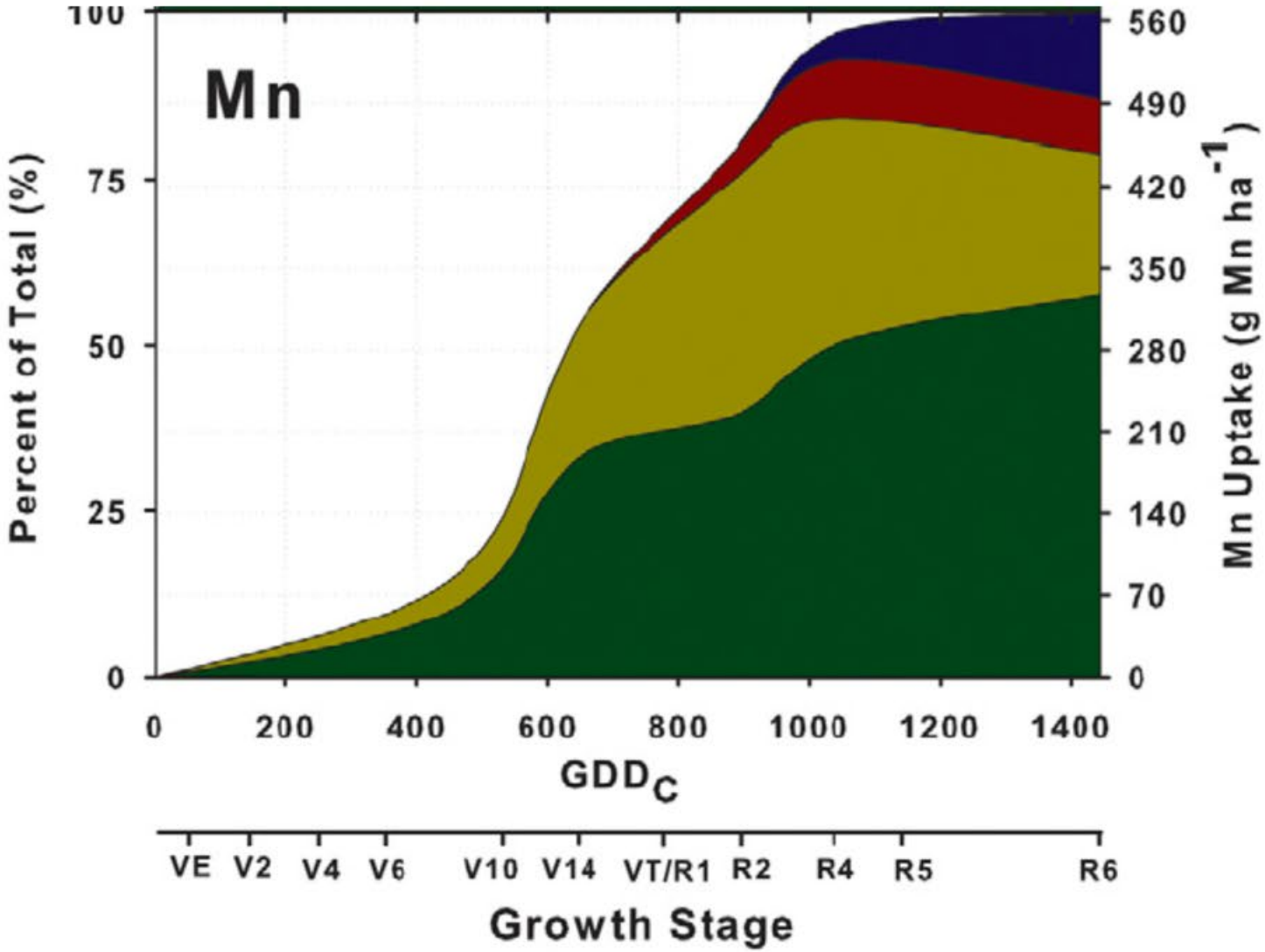
What does Manganese do?

- Mn
  - Chlorophyll production, lignin building, disease, kernel weight

Mn uptake & partitioning for 230 bushel corn



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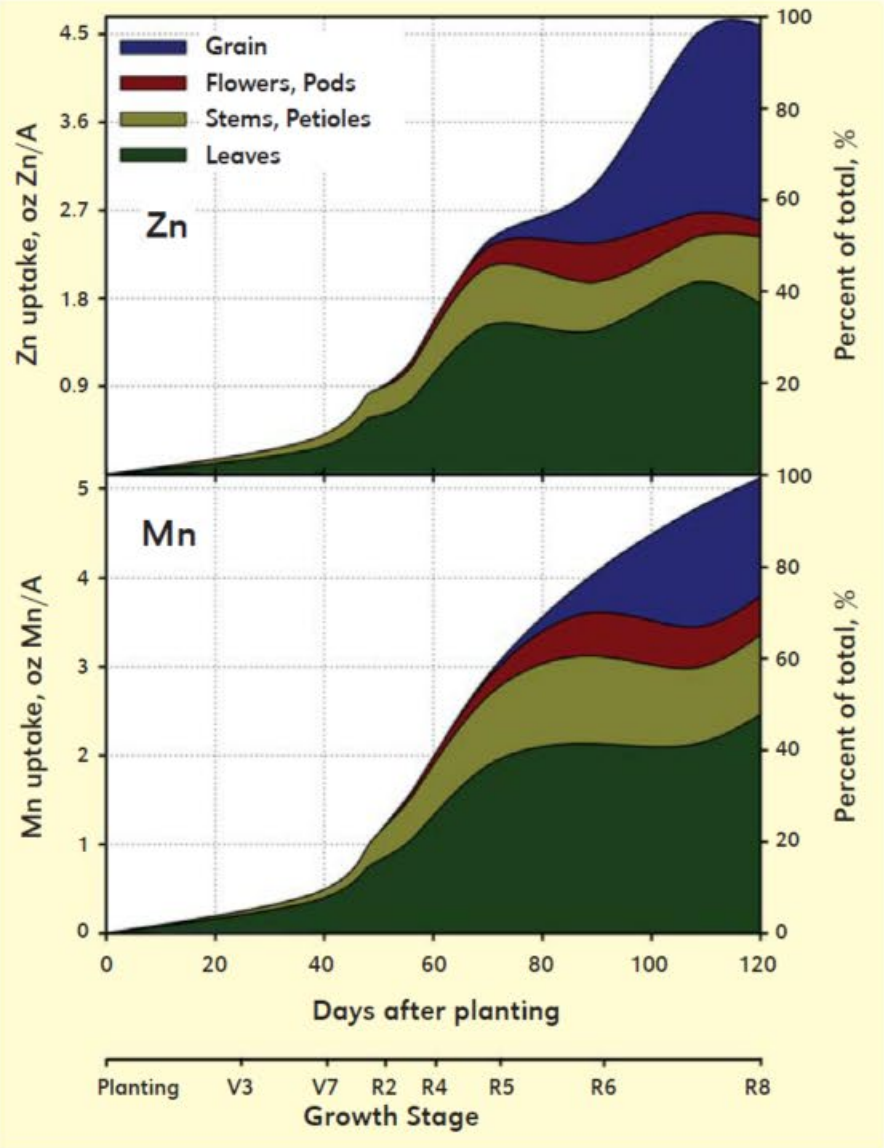

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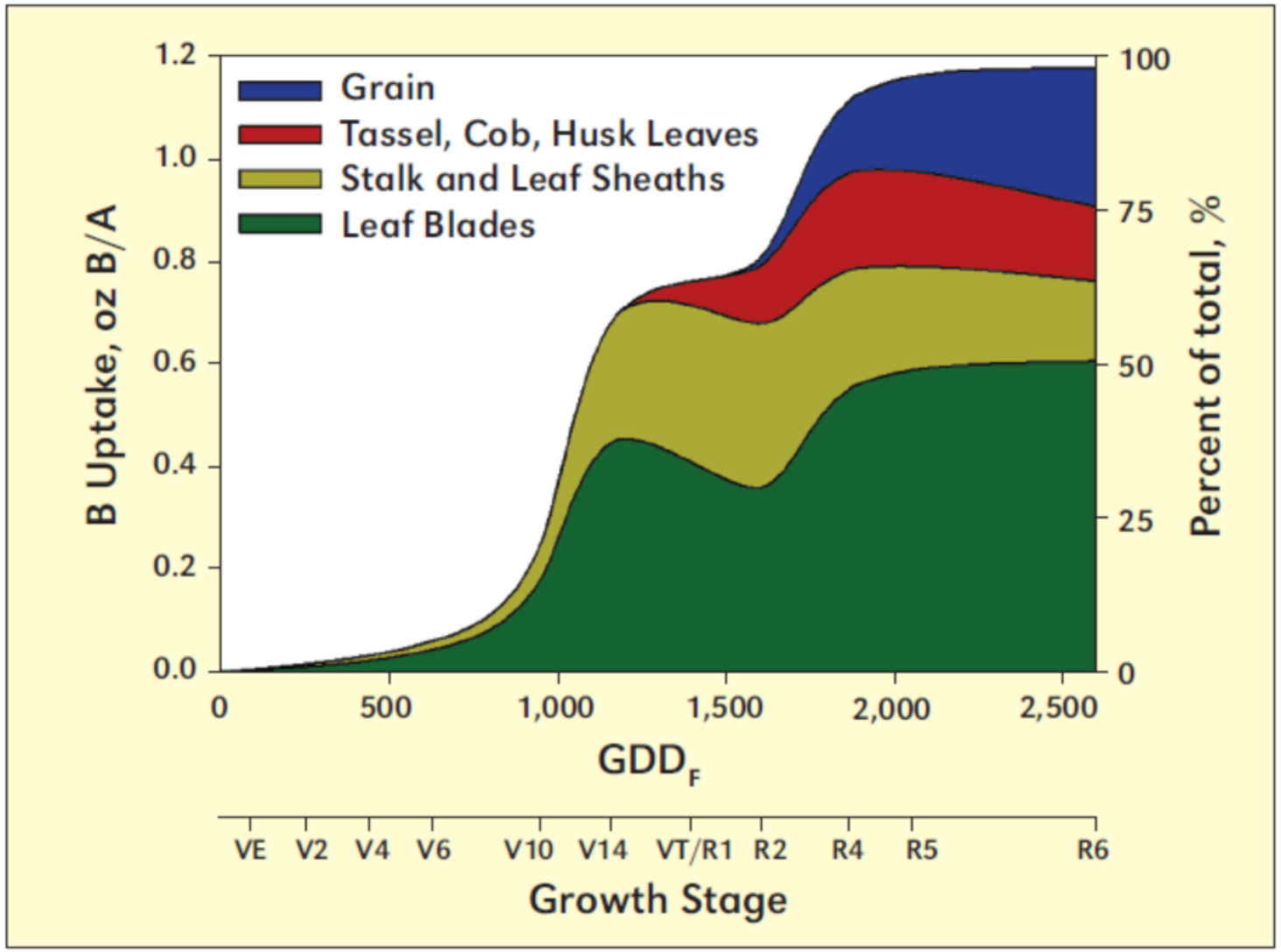
What does Boron do in the Plant?

- Boron (& Ca)
  - Cell wall structure, movement pathways, xylem and phloem.

B uptake & partitioning for 230 bushel corn



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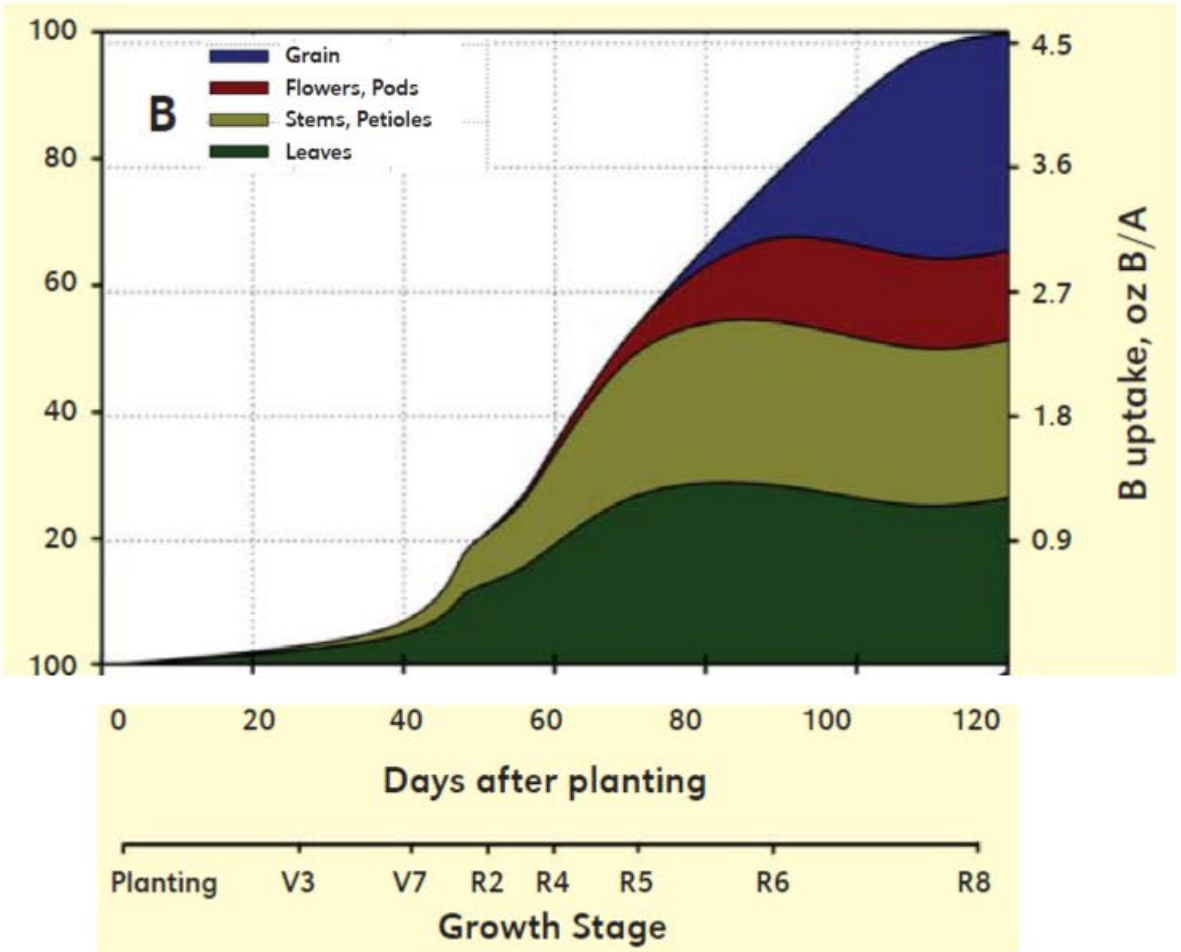

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Products

- 14.3% Boron –OR- ASPIRE
- Zinc Sulfate
- Elemental, Gyp, AMS
- Wolf Trax- Boron or Zinc
- Seed Treatment Zinc Ultra-Che
- Micro Sync Products

Post Emergence Foliar

WHAT'S IN YOUR PLANT?

Plant Health

- Nutrient Uptake Increase
- Foliars pull your plants out of the "Hangover"

Generic vs Premium

- What's in the Jug?
- Why is it more expensive than others?
  - Good products=good consistent results

MAX-IN® Ultra ZMB®
By WINFIELD UNITED

CLAWEL™

MICRO ZMB

Corn Fungicides

WHO IS HAVING "FUN"?

WHY?

Inconsistent disease pressure and environments have created doubt, second guessing, and anxiety about fungicide choices and timings.

2022- GLS, Late Tar Spot
2023- GLS, Severe Tar Spot in certain geographies, looked to be expanding and created high anxiety, tunnel vision
2024- GLS, Anthracnose, Moderate to heavy Southern Rust, what happened to Tar Spot?
2025- GLS, Severe Southern Rust, Where is Tar Spot?

2026?

- We can't predict the exact profitability of the application. Will it pay in 2026?
- Corn diseases are hard to predict. What should I be concerned about?
- There is a lot of discussion and confusion around timing. What is the right time to spray?
- Disease seems to be getting worse and could potentially overwhelm my fungicide. Then what?
- What are some of the benefits of purchasing from Ag Partners?
- What product will be our lead recommendation in 2026?

2026?

We can't predict the exact profitability of the application. Will it pay in 2026?

-We know a premium fungicide containing 3 modes of action, when applied at the right time, even in the absence of disease is profitable!

-A proven performer, like (Trivapro or Delaro Complete) is a profitable application year over year. Some years pay more! (2025 was big)

Corn diseases are hard to predict. What should I be concerned about?

- Time should not be spent trying to predict the disease triangle
- Economics disease pressure if it occurs will be in these four diseases- Gray Leaf Spot, Tar Spot, Southern Rust, Northern Corn Leaf Blight.
- Choosing a solid PREMIUM product proven to be effective against all these major diseases

2026?

There is a lot of discussion and confusion around timing. What is the right time to spray?

-VT/R1 application with a premium branded fungicide with superior length in residual builds confidence.

- Make a plan!

Disease seems to be getting worse and could potentially overwhelm my fungicide? Then what?

- Premium products have proven themselves year or over year under heavy disease pressure.

WHY AG PARTNERS?

Benefits of purchasing Premium Fungicides from Ag Partners:

- 0% financing on Trivapro
- 0% finance Delaro Complete
- Additional fungicide/herbicide pair-up opportunities
- AgriEdge cost share
- Application-rain out assurances
- Experienced, long-standing, stable representation
- Service and support of Premium applications
- Connections with aerial and drone applicators for superior timing and professional application

AG PARTNERS OFFERS ?

Benefits of purchasing Premium Fungicides from Ag Partners:

- SYNGENTA PAIR UP PROGRAM-
- ACURON or STOREN
  - PAIRED WITH TRIVAPRO
  - $2.00/acre rebate
- BAYER- THE PERFECT PAIR
- DEKALB CORN PLUS DELARO or DELARO COMPLETE
- $3.00/acre rebate

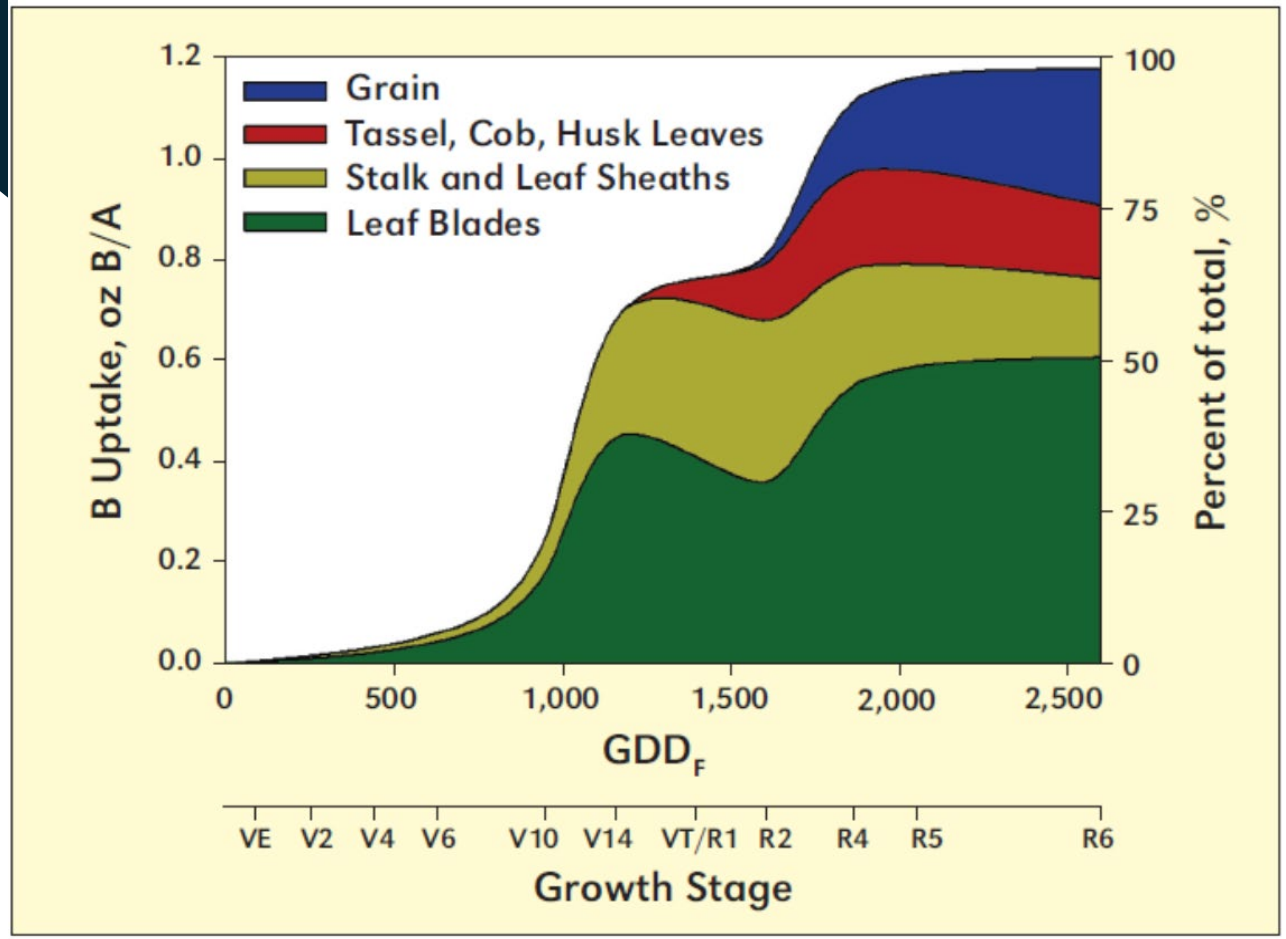
2025 Results and 2026 Recommendations

	1 pass True Yield	Cost	Yield Increase	Return on Applications	Comparison	Corn Price
Untreated	**216**	**$ -**				$ 4.00
Trivapro	241	$ 35.58	25	$ 64.42	$ -	
Trivapro	247	$ 71.16	31	$ 52.84	$ (11.58)	
Aframe	238	$ 36.00	22	$ 52.00	$ (12.42)	
Delaro Complete	245	$ 68.72	29	$ 47.28	$ (17.14)	
Delaro 325	241	$ 62.78	25	$ 37.22	$ (27.20)	
Delaro 325	231	$ 30.39	15	$ 29.61	$ (34.81)	
Aframe	227	$ 18.00	11	$ 26.00	$ (38.42)	
Veltyma	230	$ 38.25	14	$ 17.75	$ (46.67)	
Adastrio	236	$ 67.00	20	$ 13.00	$ (51.42)	
Miravis Neo	236	$ 72.44	20	$ 7.56	$ (56.86)	
Miravis Neo	226	$ 36.22	10	$ 3.78	$ (60.64)	
Delaro Complete	225	$ 34.36	9	$ 1.64	$ (62.78)	
Adastrio	223	$ 33.50	7	$ (5.50)	$ (69.92)	
1 pass						
2 pass						

Boron At Tassel

DON'T BE A MORON, ADD THE BORON

The Boron Curve



Key Takeaways

- Understanding the basics of soil health and the importance of starting with the basics.
- The role foliars play and why they are important
- Fungicide Products/Timings
- What you do today will impact tomorrow.

Questions?