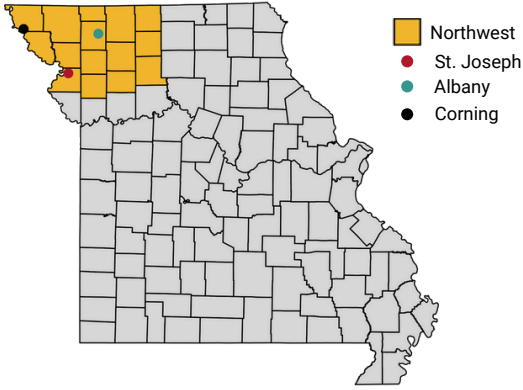




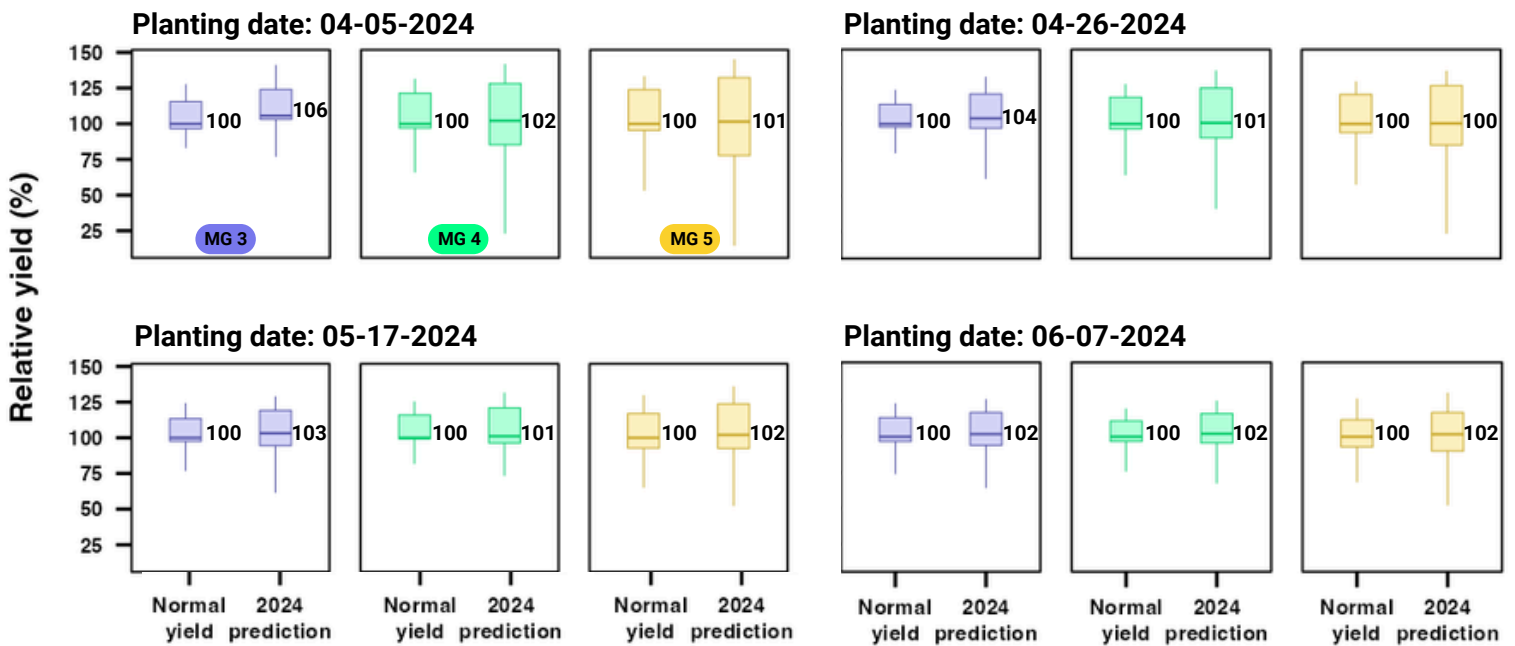
# SOYBEAN GROWTH MONITORING

WEEK: 06 / 10 - NORTHWEST - MO



- Soybean vegetative growth for all MGs planted on 04/05, 04/26, and 05/17 is from 25% to 60% above the expected growth. Early canopy closure and early final herbicide application are expected.
- The vegetative growth will also impact the crop's water requirement until the end of the season. Vegetative biomass is linked to leaf area and greater leaf area uses more water. Soil water content remains high, although the early planted soils are already showing some reduction in stored water. No drought stress has been detected yet.
- MG 3.0 soybean planted on 04/05 is beginning to flower, while MG 4.0 or later planting dates have not yet reached this stage. It will be important to monitor for insects and diseases from now until the end of seed filling.
- In the next two weeks, temperature and soil moisture will be critical for pod setting and yield determination in fields planted from early to mid-April.

## 2024 Relative Yield Prediction

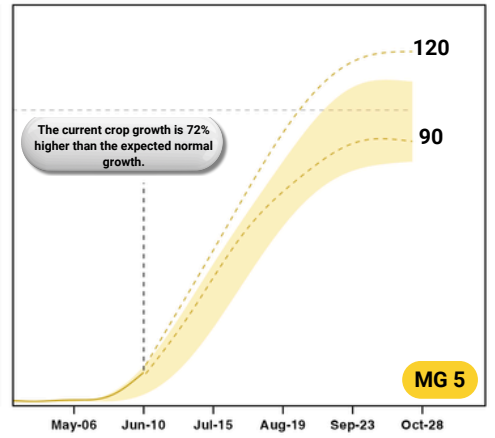
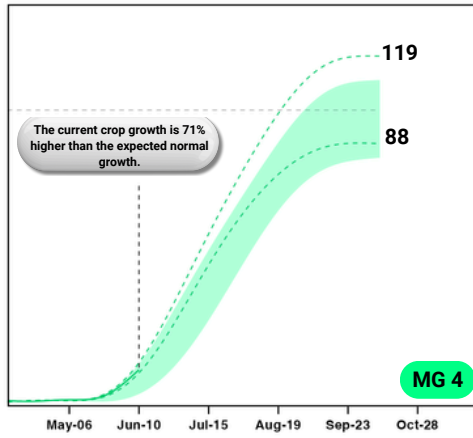
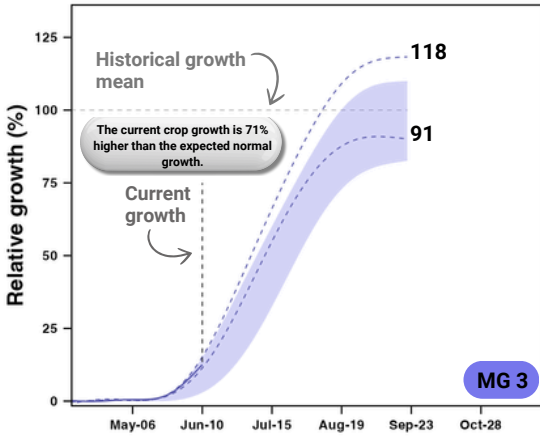


The 2024 yield prediction for a 3.0 MG planted on 04/05 is expected to be 6% higher than the normal yield. The normal yield is the average expected yield for a specific location, based on weather scenarios observed over the past 40 years.

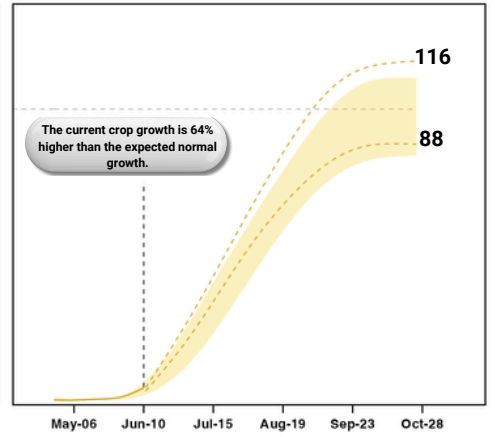
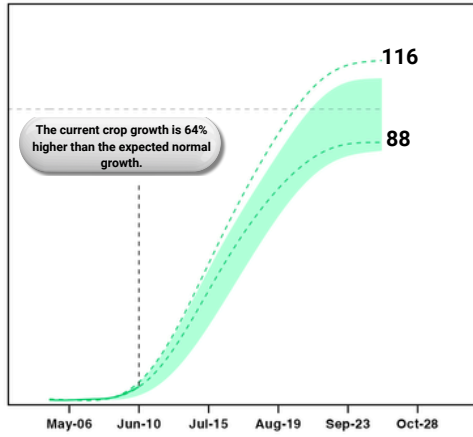
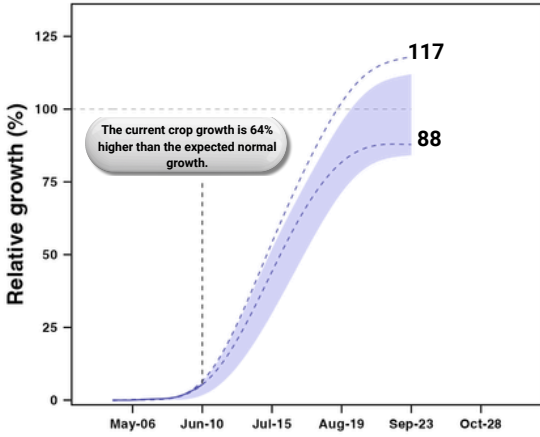
- **Obs 1:** The 2024 yield prediction is relative to the normal yield of the same maturity MG planted on the same date.
- **Obs 2:** The normal yield is the average yield expected from simulating a current crop variety using 40 years of historical weather data for a specific location and planting date.
- **Obs 3:** The normal yield serves as the 100% baseline for the 2024 yield prediction.

### End-of-season growth prediction

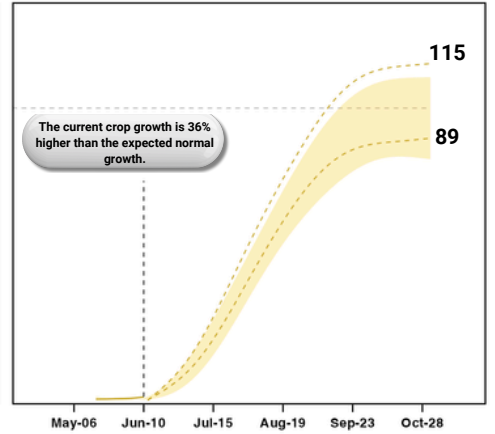
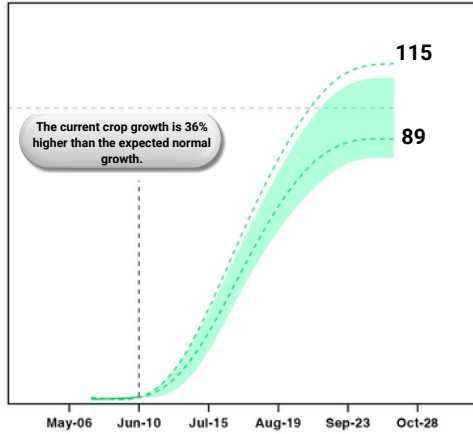
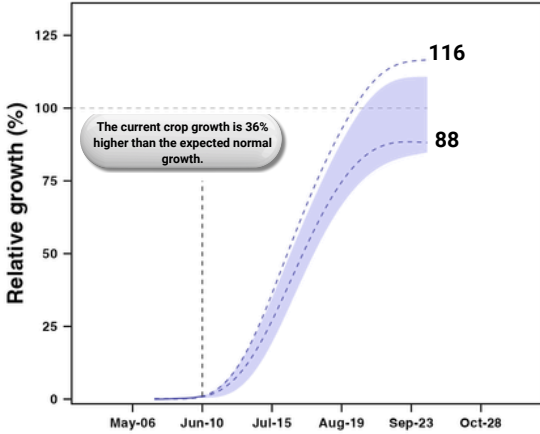
Planting date: 04-05-2024



Planting date: 04-26-2024



Planting date: 05-17-2024



Normal growth distribution      Current growth      Current growth distribution MIN/MAX

The normal growth represents the average growth expected at the reporting date, derived from simulating a current crop variety using 40 years of historical weather data specific to a particular location and planting date.

### Soil water content

Planting date: 04-05-2024

Soil layer	Soil layer		
	0-8in	8-33in	33-49in
Corning (Dockery silt loam)	74%	82%	84%
Albany (Grundy silt loam)	51%	58%	62%
St. Joseph (Marshall silt loam)	48%	59%	58%

04-26-2024

Soil layer	Soil layer		
	0-8in	8-33in	33-49in
Corning (Dockery silt loam)	66%	80%	83%
Albany (Grundy silt loam)	58%	65%	71%
St. Joseph (Marshall silt loam)	58%	69%	69%

05-17-2024

Soil layer	Soil layer		
	0-8in	8-33in	33-49in
Corning (Dockery silt loam)	69%	82%	86%
Albany (Grundy silt loam)	72%	76%	80%
St. Joseph (Marshall silt loam)	75%	81%	80%

06-07-2024

Soil layer	Soil layer		
	0-8in	8-33in	33-49in
Corning (Dockery silt loam)	72%	84%	87%
Albany (Grundy silt loam)	78%	81%	84%
St. Joseph (Marshall silt loam)	80%	85%	84%

### Growth Cycle

Planting date: 04-05-2024

04-26-2024

05-17-2024

06-07-2024

Stage	Nodes	Harvest
MG 3 R1	9	08/24 ± 3 days
MG 4 V9	9	09/09 ± 4 days
MG 5 V9	9	09/22 ± 5 days

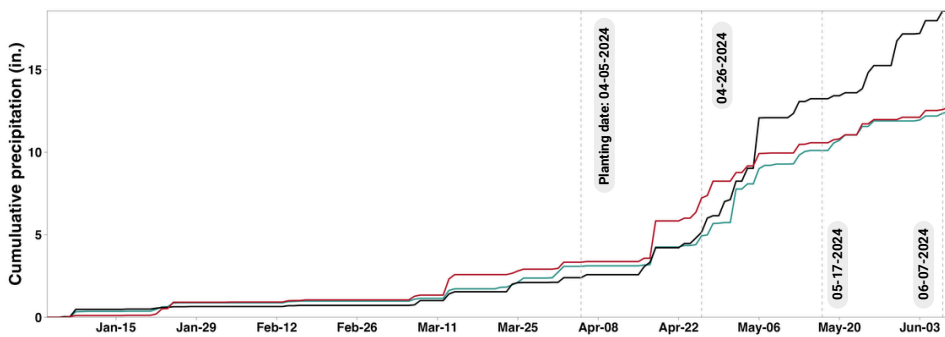
Stage	Nodes	Harvest
V7	7	09/01 ± 3 days
V7	7	09/16 ± 4 days
V7	7	09/28 ± 5 days

Stage	Nodes	Harvest
V3	3	09/11 ± 3 days
V3	3	09/24 ± 4 days
V3	3	10/06 ± 5 days

Stage	Nodes	Harvest
VC	0	09/22 ± 3 days
VC	0	10/04 ± 4 days
VC	0	10/14 ± 5 days

The stage and nodes indicate the current crop development as of the date of this report.

### Rainfall



### Drought Stress

Planting date:	MG 3	MG 4	MG 5
04-05-2024	0%	0%	0%
04-26-2024	0%	0%	0%
05-17-2024	0%	0%	0%
06-07-2024	0%	0%	0%

Drought stress is estimated by the cumulative crop transpiration reduction.