SOYBEAN GROWTH MONITORING

SOYBEAN FARMING SYSTEMS
RESEARCH AND EXTENSION

WEEK: 07/23 - NORTHWEST - MO

Northwest
● Corning
● Albany
● St. Joseph
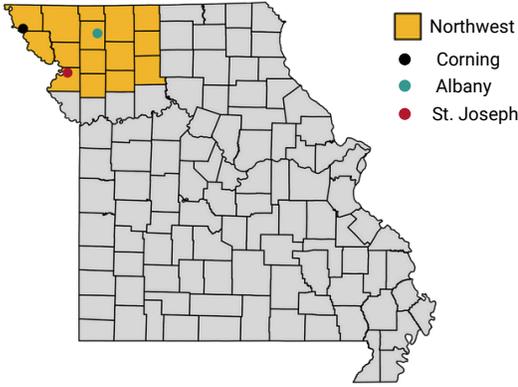
- Soil moisture remains high in the NW region, with no significant drought stress detected so far this season for any planting dates or maturity groups.

- April and May planting are currently undergoing yield-determining developmental stages, benefiting from good conditions in terms of water availability and temperature.

- Yields are expected to increase by up to 22%, with an average increase of 13% across the different planting scenarios in the region.

2024 Relative Yield Prediction

Planting date:

04-05-2024			04-26-2024			05-17-2024			06-07-2024		
MG 3	MG 4	MG 5	MG 3	MG 4	MG 5	MG 3	MG 4	MG 5	MG 3	MG 4	MG 5
+18%	+19%	+22%	+15%	+17%	+17%	+11%	+12%	+12%	+2%	+5%	+5%

- **Obs:** The 2024 yield prediction is relative to the normal yield of the same maturity group planted on the same date.

Growth Cycle

Planting date: 04-05-2024

	Stage	Nodes	Harvest
MG 3	R5	19	08/26 ± 2 days
MG 4	R3	19	09/11 ± 2 days
MG 5	R1	19	09/24 ± 3 days

04-26-2024

Stage	Nodes	Harvest
R5	17	09/02 ± 2 days
R3	17	09/17 ± 2 days
R1	17	09/30 ± 3 days

05-17-2024

Stage	Nodes	Harvest
R3	14	09/11 ± 2 days
R1	14	09/24 ± 3 days
R1	14	10/06 ± 4 days

06-07-2024

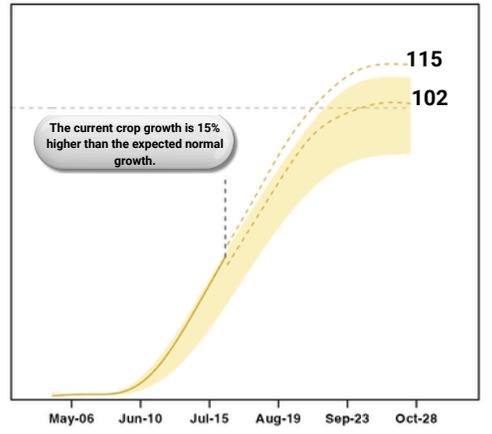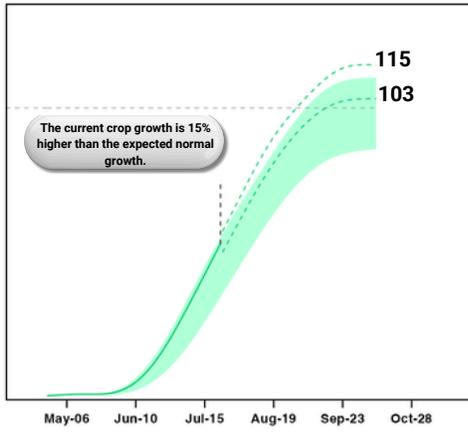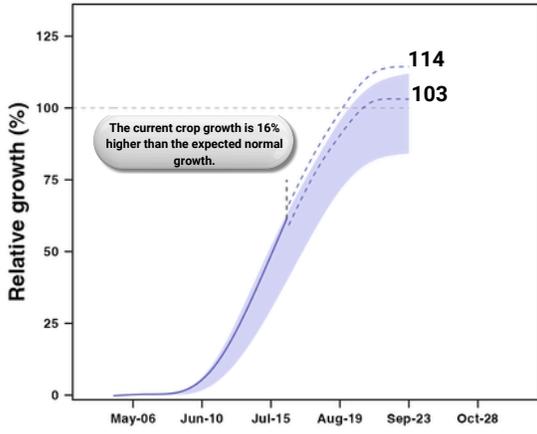| Stage	Nodes	Harvest
R1	10	09/21 ± 3 days
V10	10	10/04 ± 3 days
V10	10	10/14 ± 4 days

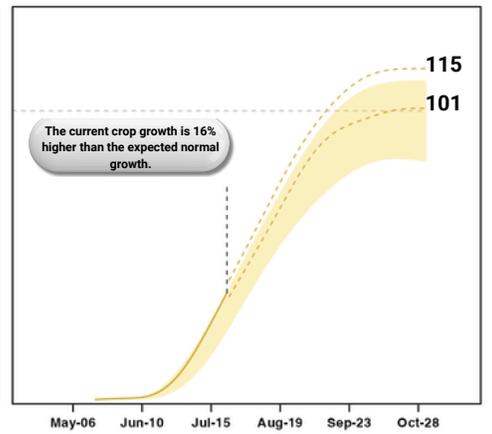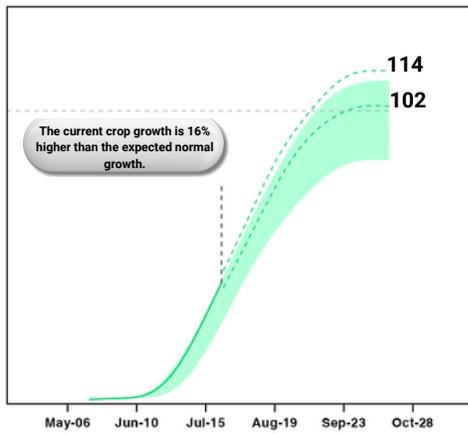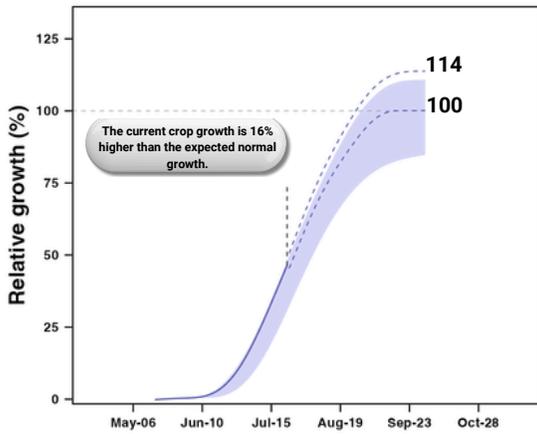The stage and nodes indicate the current crop development as of the date of this report.

End-of-season growth prediction

Planting date: 04-05-2024

The current crop growth is 17% higher than the expected normal growth. — MG 3 — 116 / 104

The current crop growth is 17% higher than the expected normal growth. — MG 4 — 118 / 102

The current crop growth is 17% higher than the expected normal growth. — MG 5 — 118 / 102

Planting date: 04-26-2024

The current crop growth is 16% higher than the expected normal growth. — 114 / 103

The current crop growth is 15% higher than the expected normal growth. — 115 / 103

The current crop growth is 15% higher than the expected normal growth. — 115 / 102

Planting date: 05-17-2024

The current crop growth is 16% higher than the expected normal growth. — 114 / 100

The current crop growth is 16% higher than the expected normal growth. — 114 / 102

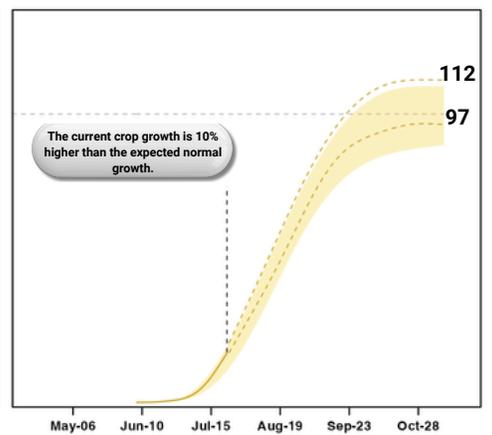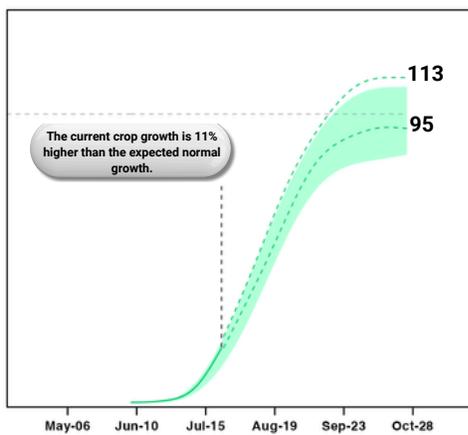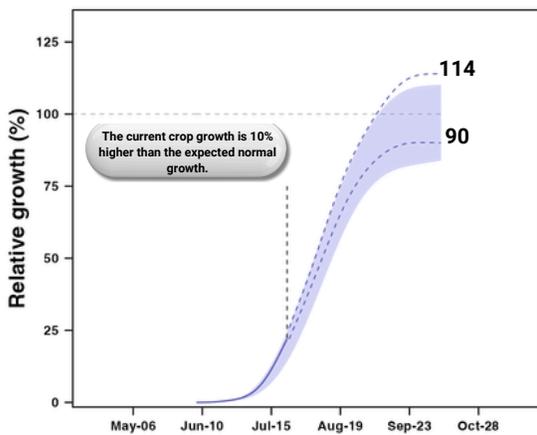The current crop growth is 16% higher than the expected normal growth. — 115 / 101

Planting date: 06-07-2024

The current crop growth is 10% higher than the expected normal growth. — 114 / 90

The current crop growth is 11% higher than the expected normal growth. — 113 / 95

The current crop growth is 10% higher than the expected normal growth. — 112 / 97
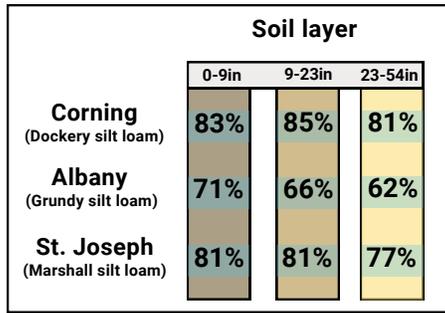
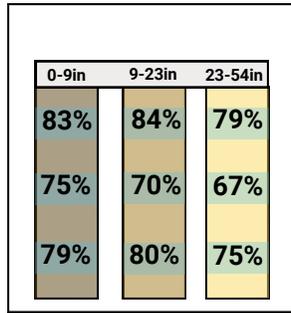**Legend:** Normal growth distribution — Current growth — Current growth distribution MIN/MAX

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.
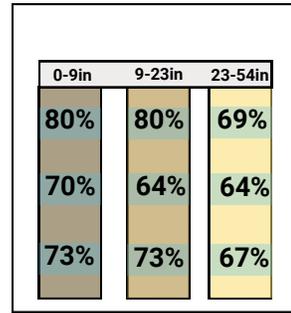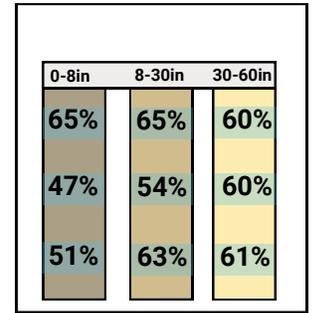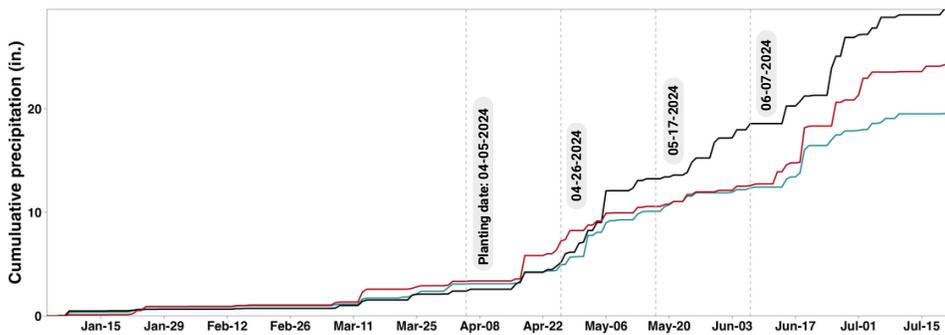
Soil water content

Planting date: 04-05-2024

Soil layer

	0-9in	9-23in	23-54in
Corning (Dockery silt loam)	83%	85%	81%
Albany (Grundy silt loam)	71%	66%	62%
St. Joseph (Marshall silt loam)	81%	81%	77%

04-26-2024

	0-9in	9-23in	23-54in
Corning	83%	84%	79%
Albany	75%	70%	67%
St. Joseph	79%	80%	75%

05-17-2024

	0-9in	9-23in	23-54in
Corning	80%	80%	69%
Albany	70%	64%	64%
St. Joseph	73%	73%	67%

06-07-2024

	0-8in	8-30in	30-60in
Corning	65%	65%	60%
Albany	47%	54%	60%
St. Joseph	51%	63%	61%

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.