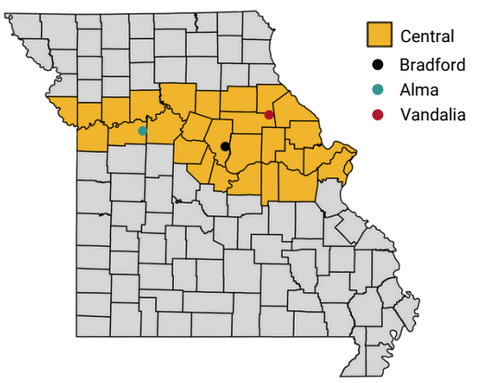
SOYBEAN GROWTH MONITORING

SOYBEAN FARMING SYSTEMS RESEARCH AND EXTENSION

WEEK: 07/23-CENTRAL-MO



- Soil moisture remains high in the region, with no significant drought stress detected so far this season for any planting dates or maturity groups.

- Most combinations of planting dates and maturity groups are currently in yield-determining developmental stages, benefiting from good conditions in terms of water availability and temperature.

- Yields are expected to increase by up to 30%, with an average increase of 18% 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
+27%	+26%	+28%	+22%	+22%	+25%	+18%	+19%	+20%	+5%	+5%	+6%

- **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	20	08/22 ± 1 days
MG 4	R3	20	09/07 ± 2 days
MG 5	R3	20	09/20 ± 2 days

04-26-2024

Stage	Nodes	Harvest
R5	18	08/30 ± 1 days
R3	18	09/13 ± 2 days
R1	18	09/26 ± 2 days

05-17-2024

Stage	Nodes	Harvest
R3	14	09/08 ± 2 days
R1	14	09/22 ± 2 days
R1	14	10/03 ± 3 days

06-07-2024

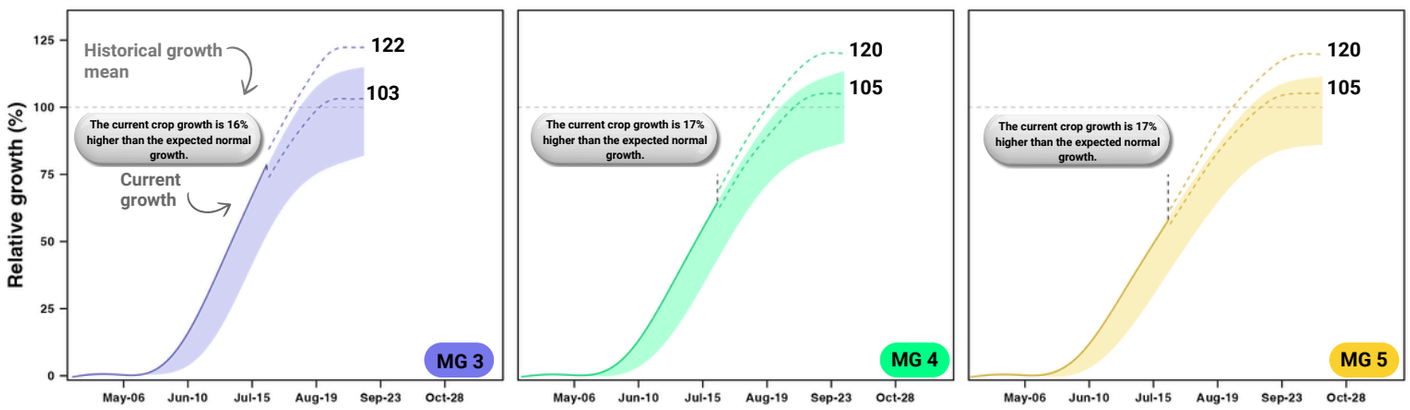
Stage	Nodes	Harvest
R1	10	09/19 ± 3 days
V10	10	10/01 ± 3 days
V10	10	10/12 ± 4 days

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

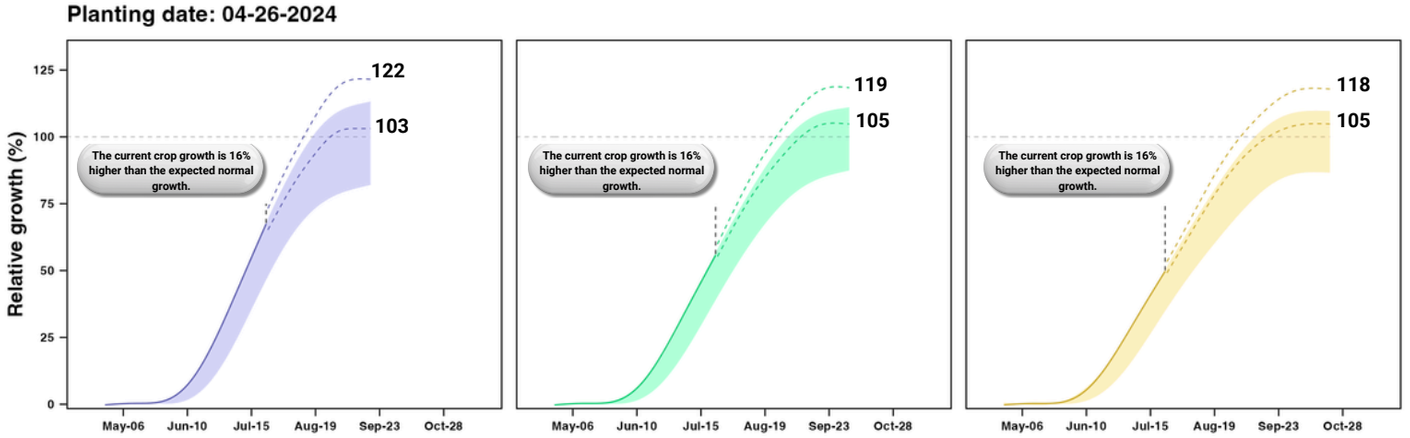
Contact information: areis@missouri.edu

End-of-season growth prediction

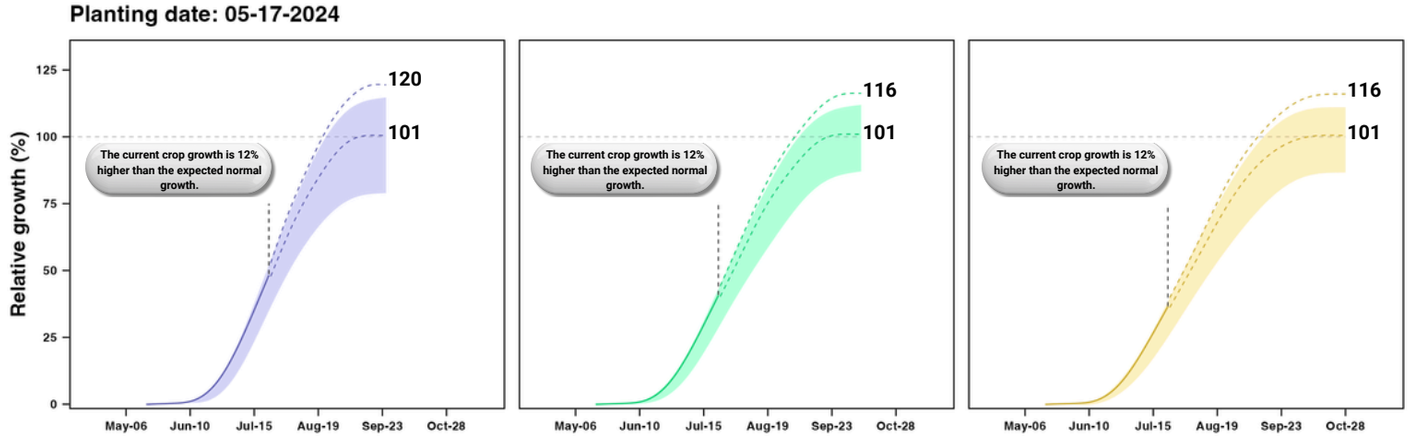
Planting date: 04-05-2024



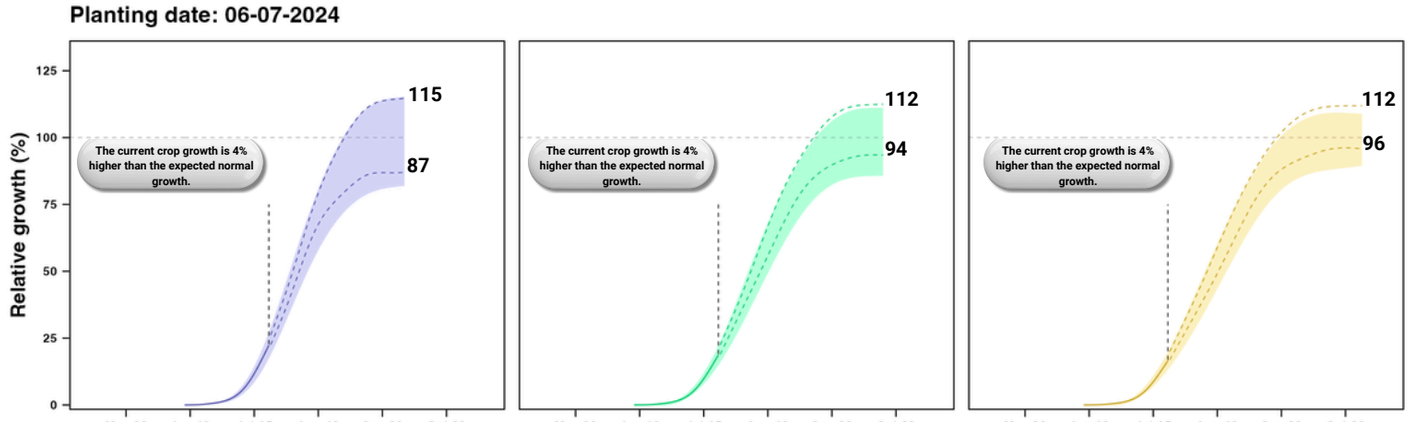
Planting date: 04-26-2024



Planting date: 05-17-2024



Planting date: 06-07-2024



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.

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Soil water content

Planting date: 04-05-2024

Soil layer	0-9in	9-23in	23-54in
Bradford (Armstrong loam)	79%	82%	81%
Alma (Higginsville silt loam)	77%	79%	79%
Vandalia (Mexico silt loam)	72%	74%	69%

04-26-2024

	0-9in	9-23in	23-54in
	80%	80%	80%
	77%	79%	78%
	71%	73%	70%

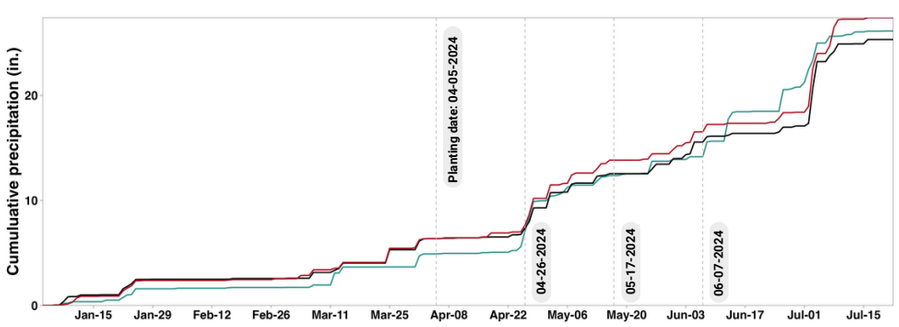
05-17-2024

	0-9in	9-23in	23-54in
	75%	77%	77%
	72%	75%	74%
	64%	67%	65%

06-07-2024

	0-8in	8-30in	30-60in
	44%	64%	66%
	43%	59%	65%
	39%	54%	56%

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.

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