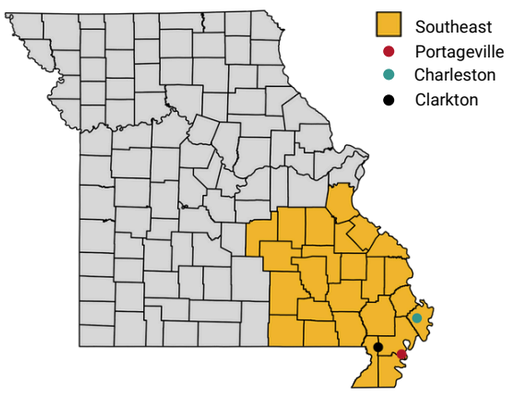
SOYBEAN GROWTH MONITORING

SOYBEAN FARMING SYSTEMS RESEARCH AND EXTENSION

WEEK: 10-01-SOUTHEAST-MO



- From April to May, soybean plants experienced drought stress due to low rainfall, even in irrigated systems in the southeastern region. The water deficit accumulated from August through late September exceeded 4.6 inches. Many soybean fields senesced prematurely, preventing seeds from fully filling within the pods, which reduced test weights.

- Hurricane Helene brought heavy rainfall to the region from 24 to 27 September, totaling up to 3.5 inches of precipitation. In addition to the rainfall, high humidity and overcast skies extended the exposure of mature pods and beans to moisture, halting harvest operations.

- The combination of late-season drought and excessive moisture from the storm led to some seed sprouting within the pods, black fungus, and other forms of deterioration. Reports indicate poor industrial quality and price penalties.

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
End of cycle		End of cycle			End of cycle						
-2%	+2%	-1%	+1%	+3%	-2%	+3%	+1%	-3%	+3%	-2%	-4%
	End of cycle		End of cycle	End of cycle		End of cycle	End of cycle		End of cycle		

- **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	R7	18	End of cycle
MG 4	R7	22	End of cycle
MG 5	R7	16	End of cycle

04-26-2024

Stage	Nodes	Harvest
R7	19	End of cycle
R7	23	End of cycle
R7	17	End of cycle

05-17-2024

Stage	Nodes	Harvest
R7	19	End of cycle
R7	22	End of cycle
R7	17	10/05 ± 1 days

06-07-2024

Stage	Nodes	Harvest
R7	17	End of cycle
R7	20	10/03 ± 1 days
R7	16	10/14 ± 1 days

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

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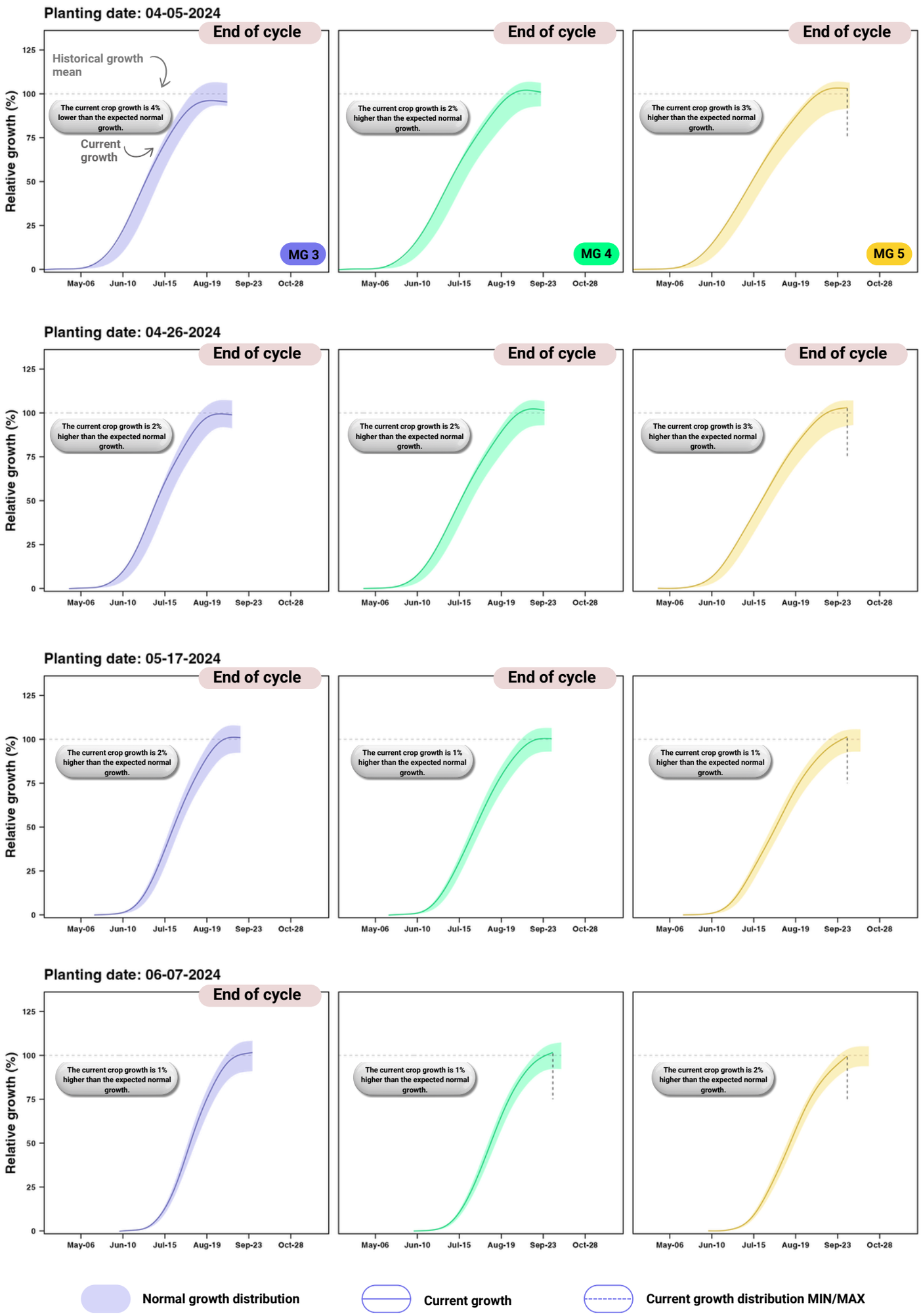
Extension University of Missouri | Variety Testing Program University of Missouri | Missouri Soybean Center University of Missouri | MISSOURI SOYBEANS

End-of-season growth prediction



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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MISSOURI SOYBEANS

Week: 10-01-Southeast-MO

Soil water content

End of cycle

Planting date: 04-05-2024

Soil layer	0-9in	9-23in	23-54in
Portageville (Portageville clay)	-	-	-
Charleston (Clana loamy fine sand)	-	-	-
Clarkton (Malden fine sand)	-	-	-

End of cycle

04-26-2024

	0-9in	9-23in	23-54in
	-	-	-
	-	-	-
	-	-	-

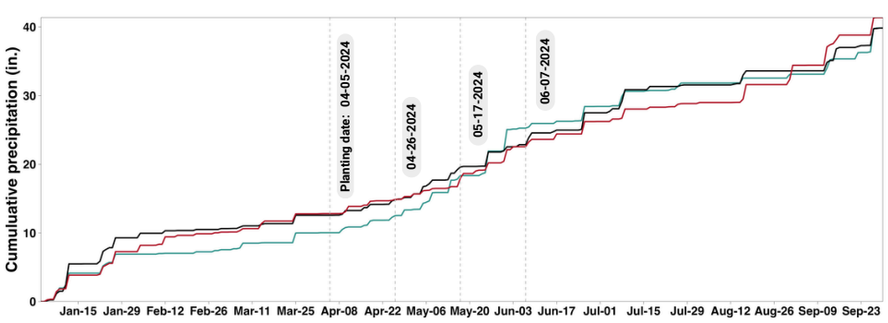
05-17-2024

	0-9in	9-23in	23-54in
	70%	82%	82%
	80%	88%	88%
	54%	64%	83%

06-07-2024

	0-8in	8-30in	30-60in
	69%	81%	82%
	79%	87%	88%
	51%	64%	82%

Rainfall



Drought Stress

Planting date:	MG 3	MG 4	MG 5
04-05-2024	-	-	-
04-26-2024	-	-	-
05-17-2024	-	-	0%
06-07-2024	-	0%	1%

Drought stress is estimated by the cumulative crop transpiration reduction.

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