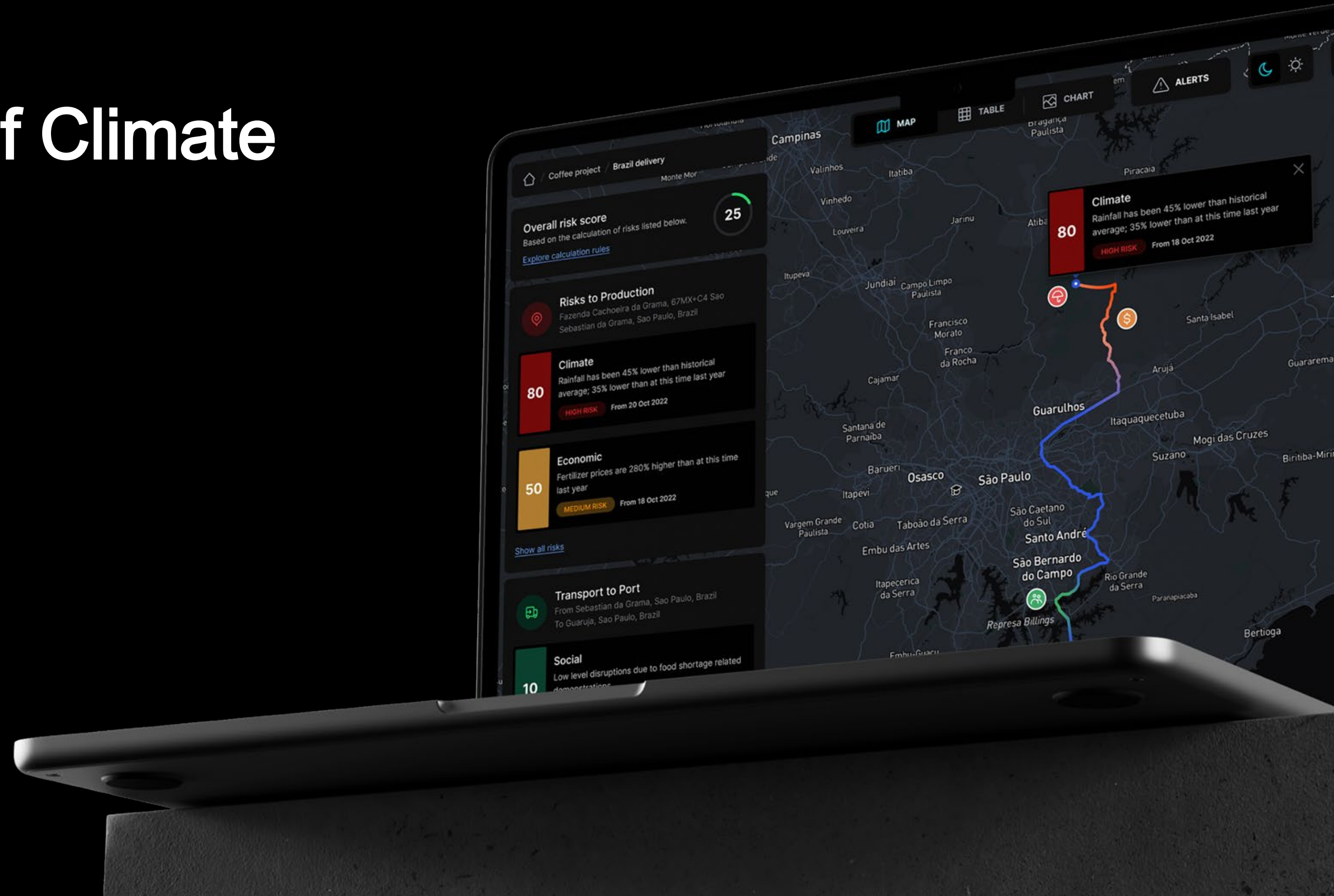




AI in the age of Climate Change



Contact us:

Francisco Martin-Rayo, CEO

f@helios.sc



[https://www.helios.sc/
cersi-ai-analyst](https://www.helios.sc/cersi-ai-analyst)



Francisco Martin-Rayó

Francisco is a serial entrepreneur, having started his first company, VuShare, during his senior year at UPenn. Most recently, he was Chief Commercial Officer at Deep Labs, an AI start-up in financial services. Before then, Francisco was a Principal at the Boston Consulting Group, where he focused on digital transformations for Fortune 100 companies. He holds a B.Sc. in Economics from the Wharton School, a B.A. in International Relations from the University of Pennsylvania, and a Masters in Public Policy from Harvard University.



Dino Cardelli

Dino Cardelli is a highly experienced Fortune 500 Supply Chain and Purchasing Professional with over 35 years of Juice, Ingredient, and Agronomic expertise. Fluent in Spanish, Dino has successfully managed strategic, operational, tactical, and indirect procurement initiatives throughout his career. Having worked with Best-In-Class companies such as Sun Orchard Juicery LLC, Pepsico Foods, The Coca-Cola Company, Tropicana, Dole, and many others.



Agricultural supply chain disruptions are at an all time high - and getting worse with climate change

But the promise of AI has not borne out

CIO JOURNAL

America's Farmers Are Bogged Down by Data

Uptake of agtech tools has been tepid, and even many farmers who do use them struggle with the software and a flood of data from their farms

By *Bel*

Aug. 2



Why The Jury Is Still Out On Robotics And Autonomous Intelligence (AI) In Agriculture

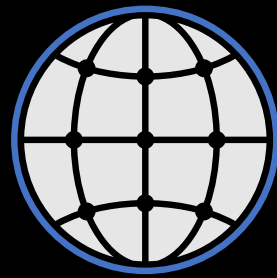
Exclusives From Urban Ag News

December 12, 2022 Chris Higgins

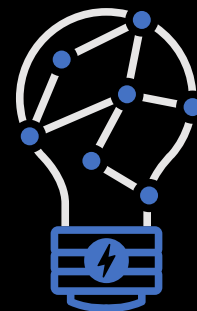
Photo: Chris Higgins, Hendersonville NC.

Recent company failures and layoffs will likely have people second guessing their commitment to the agtech movement and possibly controlled environment agriculture (CEA).

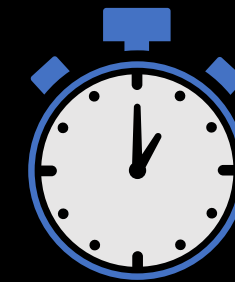
And yet y our teams are burdened with age old problems



Overreliance on
word of mouth



Data is often
wrong or outdated

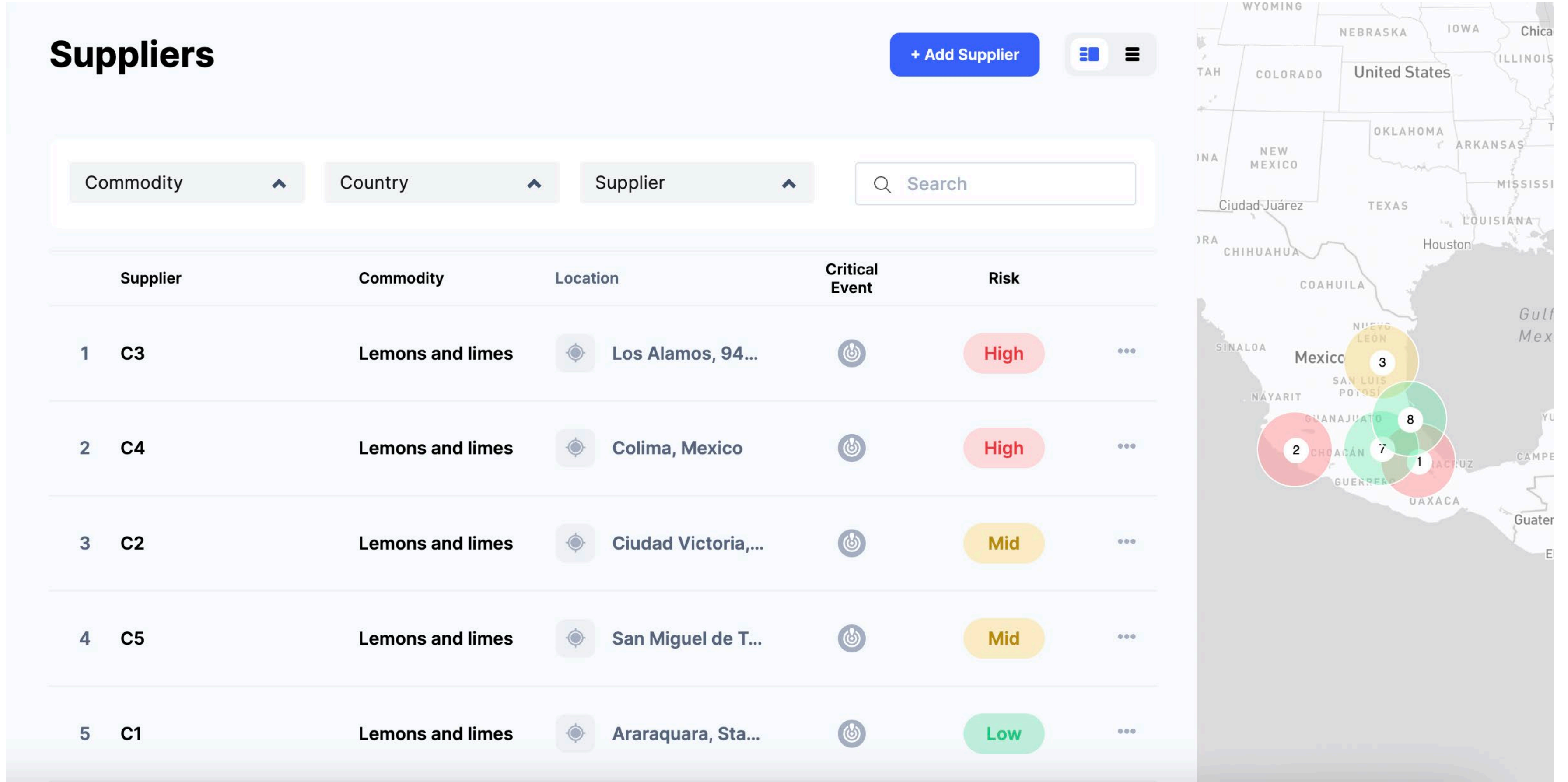


Limited ability to
get ahead of risks

So where do we go
from here?



Use data to prioritize...



...and get an early understanding of how things could impact your crops

Super Risma

Commodity
Lemons and limes

Location
Colima, Mexico

[How are we calculating?](#) ? | ×

High Your overall risk is high. Here are the reasons why:

- 17% of the days in the current growing season had unusually cool temperatures (95% percentile), which can delay crop growth.
- 12% of the days in the current growing season experienced extremely high precipitation (99% percentile), impacting plant growth.

 Climate

Mid

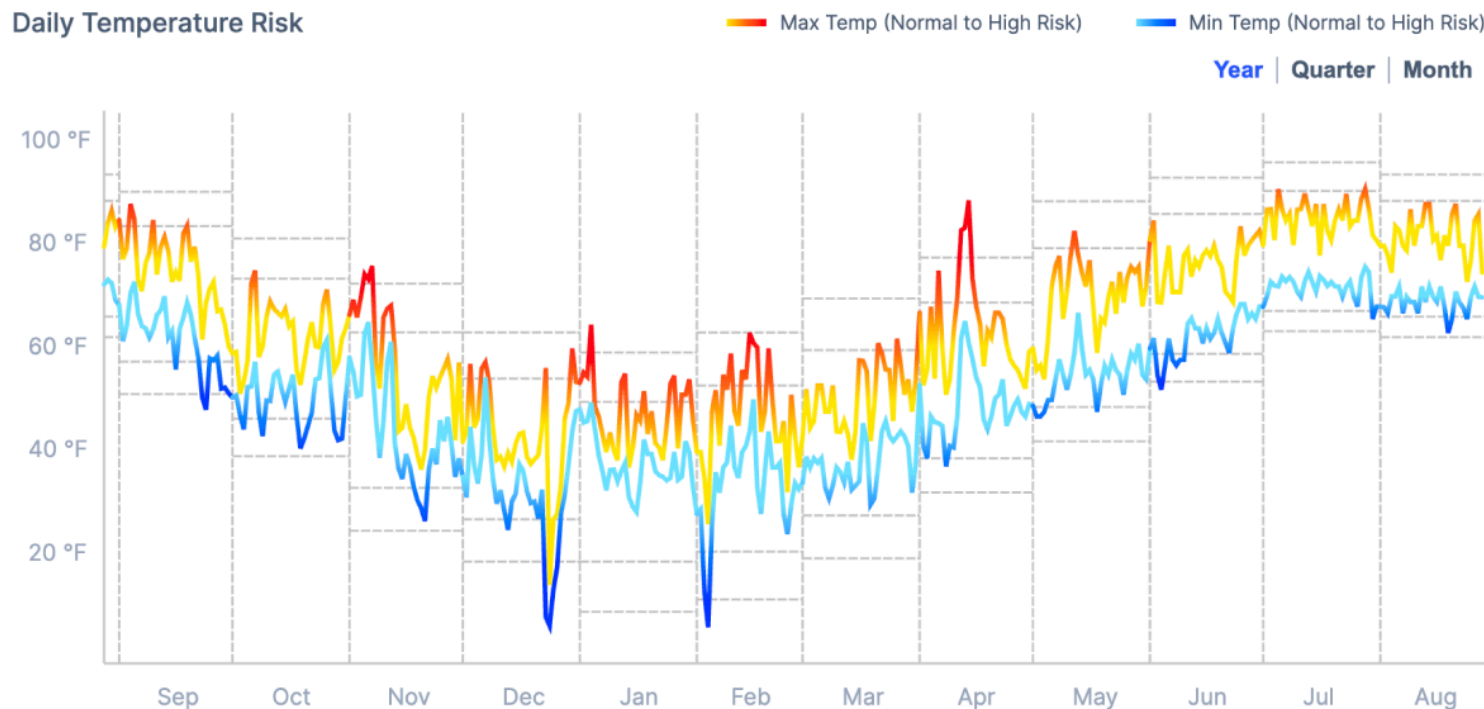
 Economy

High

 Events

High

Daily Temperature Risk



Temperature Changes ?

Average of past 30 days compared to historical average

Avg Daily Temp.

↓ **12.2%**

70.09°F

Lowest Temp.

↓ **39.2%**

40.09°F

Highest Temp.

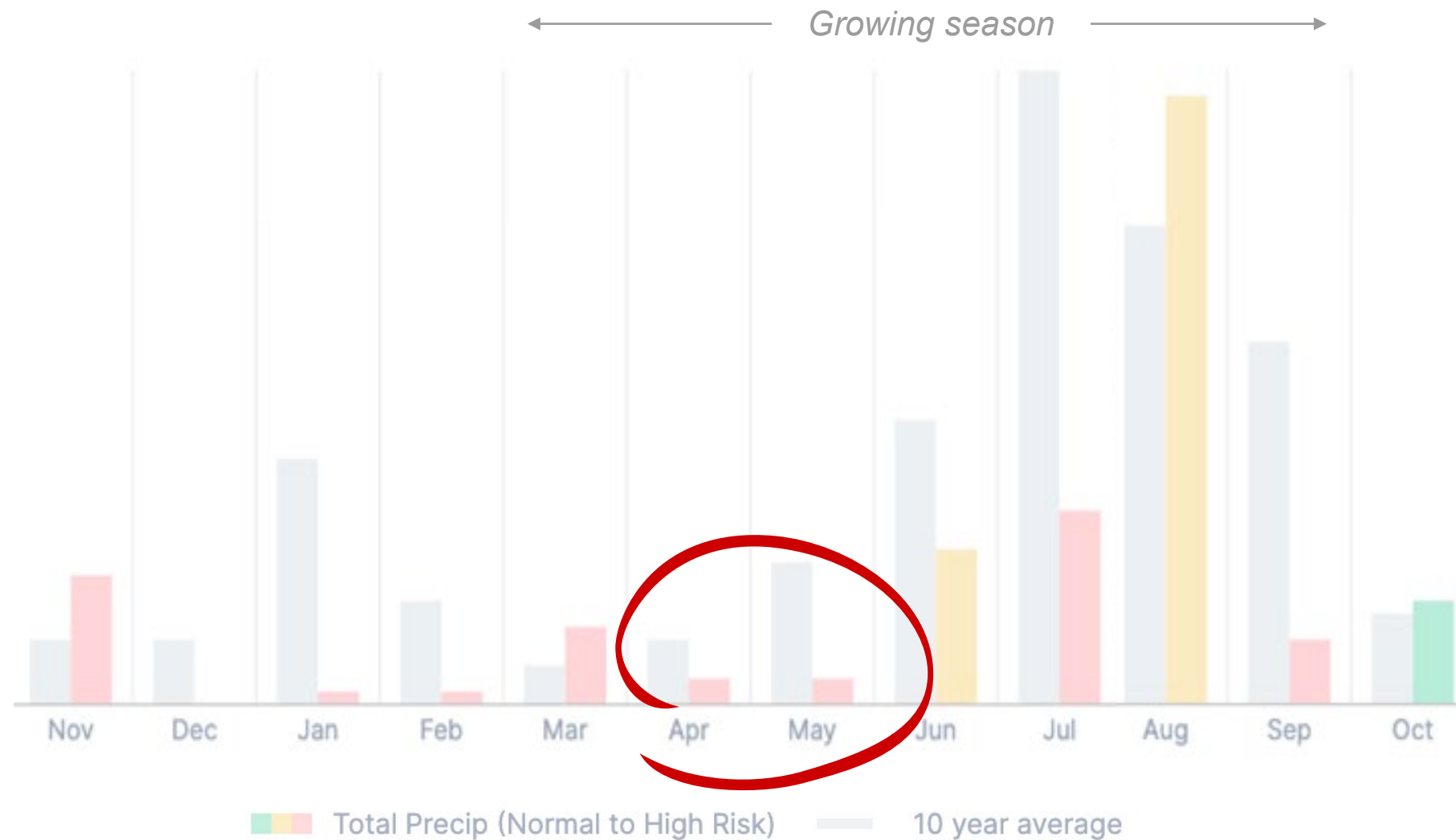
↓ **12.2%**

98.09°F

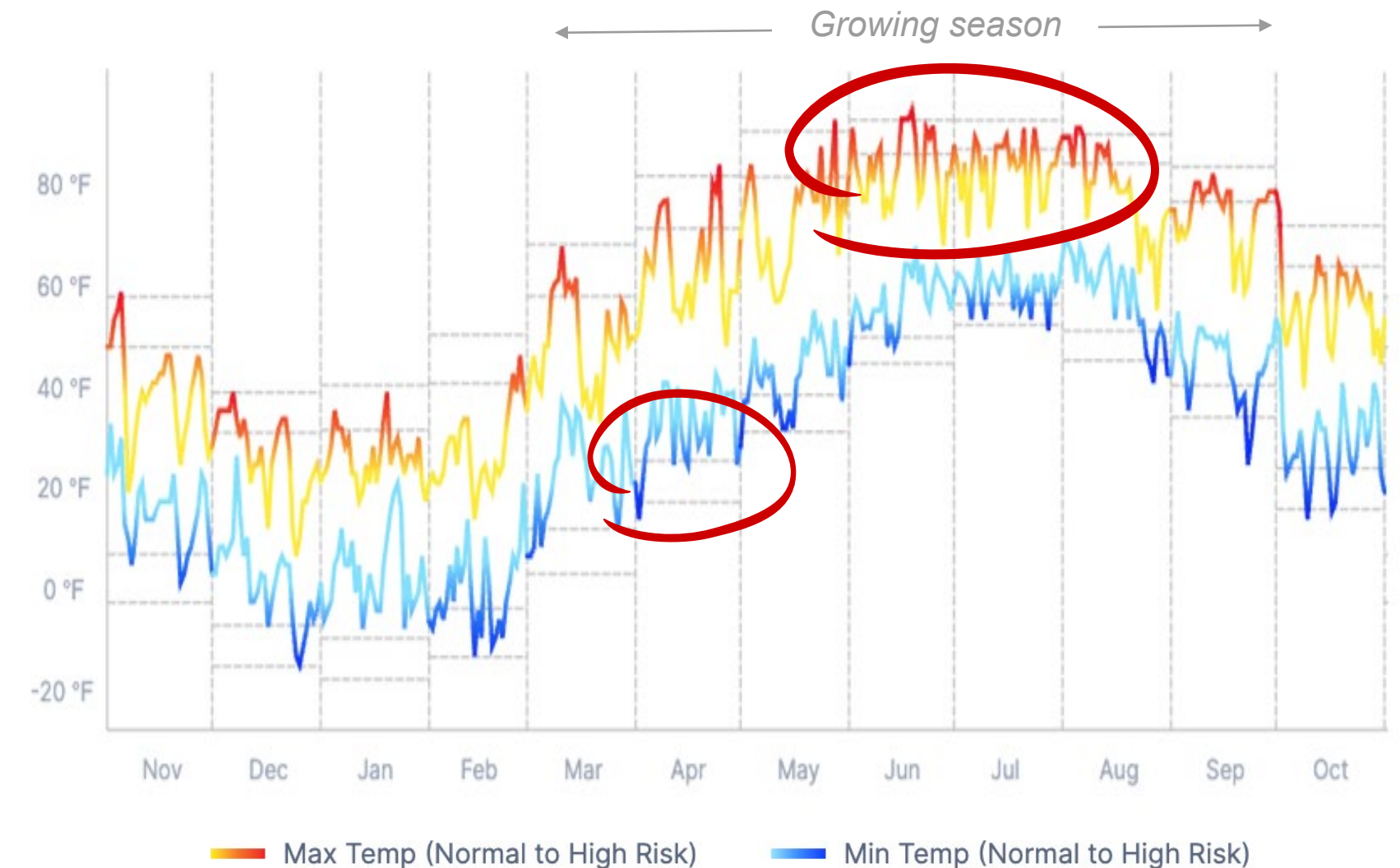
The average daily temperature has been significantly lower this year than in previous growing seasons, with 17% of days having abnormally low temperatures.

Supplier A Inner Mongolia, CHN: Risk would have been flagged by early April 2022

Precipitation



Daily Temperature Risk



Helios would have flagged potential risk of disruption as early as April, given:

- Significantly lower precipitation levels in the area for both April and May -> drought during early growth stage is most harmful to tubers and impacts yield substantially
- Historically extreme low temperatures (e.g., freezes) at the beginning of April and in mid-May, coupled with extreme highs late May thru early August -> potato productivity is greatly reduced at high temperatures, above 86 F during the day and 77 F at night

Leverage generative AI to ask questions - and plan for the future

Who is Cersi?

Cersi is a procurement manager's new best friend.

Our state-of-the-art AI tool empowers supply chain professionals to swiftly tackle complex questions that previously demanded weeks of effort.

Welcome back, John!
What would you like to know?

Hey Cersi, what are the biggest risks to my supply chain today?

There is an ongoing drought in the Khorat Plateau, Thailand, which is likely to impact 15% of your total rice supply. There is also a tropical storm impacting Guangdong Province, China, which will impact a further 7% of your rice supply.

Hmm... can you recommend other suppliers who are low risk and could make up the potential shortfall?

So - which path
are you going to
take?

