A 4-INGREDIENT, MATHEMATICALLY VALID RECIPE FOR **FORECASTING CROP YIELD**

With CIBO, land stakeholders finally can accurately, effectively and objectively understand and compare the past or future crop yield of a parcel, field, county or state—or even the entire Grain Belt. They can even estimate yield for a growing season that's only just begun. That's because CIBO uses crop-modeling technology built upon 30 years of published Michigan State University research led by Dr. Bruno Basso, MSU's renowned professor of Geological Sciences (and a CIBO co-founder). By simulating crop development—from planting to harvest—under a variety of forecast weather scenarios and management strategies, CIBO delivers accurate, up-to-date yield reports unattainable anywhere else.

FOUR KEY INGREDIENTS IN CIBO'S UNIQUE RECIPE MAKE IT ALL POSSIBLE.

01 **MATHEMATICAL MODELS:** To simulate plant growth and yield, CIBO's massive data model links complex plant characteristics to environmental variables and management practices in a mathematically valid way. But CIBO doesn't stop there. CIBO's model also takes into account many different equations and unique perspectives from renowned agronomic scientists in order to deeply understand—then accurately simulate—how a plant will interact with its environment.

02 **WEATHER PREDICTIONS:** Until CIBO, accurately predicting how weather will affect individual parcels of land in an upcoming planting season was impossible because so many different variables (e.g., soil quality, drainage ability, type of crop, etc.) needed to be considered. Yet that's exactly what CIBO is designed to do. By blending observed weather data with state-of-the-art seasonal predictions, anyone using CIBO can simulate any number of possible weather scenarios for the new planting season.

03 **REGIONAL YIELD FORECASTS:** Using an intricate, multi-step process to extend yield forecasts across an entire region, CIBO:

01. *Builds a profile of a "typical" farming scenario for each field.*
02. *Blends observed weather data with state-of-the-art seasonal predictions to simulate a range of possible weather scenarios for each field for the upcoming growing season.*
03. *Aggregates all of the possible outcomes across the sample of fields.*
04. *Repeats this aggregation process to obtain a composite prediction for the whole county, for each crop.*
05. *Repeats this aggregation process again and again to produce regional or national forecast maps.*

But that's not all. CIBO continually fine-tunes its yield forecasts by replacing forecasted weather with actual weather observations in its mathematical calculations.

CIBO ALSO USES REMOTE SENSING TECHNOLOGY… To understand—for example—how crop maturity is progressing, how actual planting dates compare to projected planting dates, and how many acres are lost to adverse conditions.

04 **WEATHER PREDICTIONS:** Only CIBO empowers any land stakeholder to predict how different factors will impact a given parcel's yield and maturity date. That's because only CIBO lets them accurately track and predict crop growth on their own, at each critical moment in a growing season, by easily inputting their specific, custom data. Even better, they can easily create, run, save and re-run an unlimited number of online yield simulations to answer important field performance questions like:

+ *"How is this year's weather likely to affect the yield?"*
+ *"How will this field perform relative to its historical performance?"*
+ *"When will the crops in this field mature?"*
+ *"How does this field compare to other fields in the county?"*

Dig deeper into each of the above elements to find out how CIBO's new, proprietary approach finally makes it possible for anyone to easily forecast yield—read the "How CIBO Uses Science to Forecast Crop Yield in a Better, Brand New Way" ebook!

TRY IT FOR FREE: **CIBOTECHNOLOGIES.COM**

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