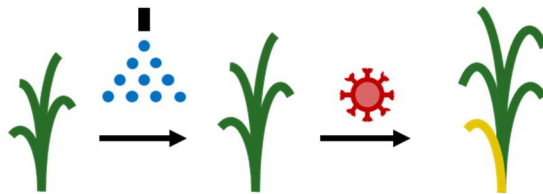
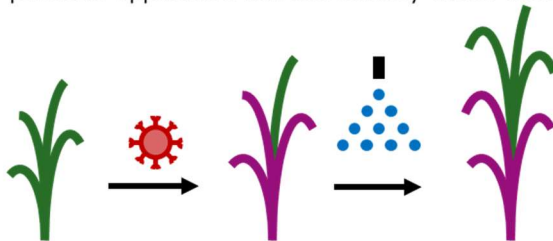


Most farmers take a risk with disease and 60% of the time unknowingly experience significant loss.



Indiscriminant spraying sometimes results in excess pesticide application and inefficiently treats disease.



**INSIGNUM** plants allow for treatment precisely when/if needed, sustainably increasing production.

Insignum AgTech enables plants use their pigments to talk to growers. Farmers know in real time when issues arise to intervene sustainably, precisely, and proactively to increase crop production. In field trials over two years, Insignum AgTech’s plants revealed all fungal diseases before they could be seen by eye. After seeing the field demo, **two leading seed corn companies will pilot in hybrids in 2023.**

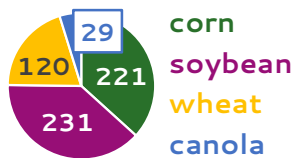
Market Size:

**\$50B**

Biotech Seeds

**\$150B**

Precision Ag



600M row crop acres in our market area

**\$1T**

Fungal disease damage

Additional Traction: A seed company monitored our field trials in 2022 using their drones and were able to detect our signals. Only disease triggered the 'flare', giving farmers directly actionable data. USDA Regulatory Exemption is expected in 2023. Advisors include Corteva’s Global Commercial Director and a retired John Deere VP of Advanced Technology. Insignum is located at Beck’s Hybrids in central Indiana.

Business Model: Insignum will license the genes, or traits, to seed companies. Their existing channels will be used to reach other seed sellers, paying royalties per unit of seed sold. These companies benefit by receiving a premium on their seeds and by selling their crop protection. Biological solutions, seeking to replace chemicals, require better timing and precision to be effective. The value of crop protection on untreated, diseased corn and soy acres in the US alone is over \$1.5 B.

Future Milestones: Insignum will create their first commercial product ready for field testing in 2024. Testing with seed companies could lead to licensing in 2025. Other stresses will be signaled with specific natural colors, like low fertility or insect attack with red or orange. Remote sensing capabilities for ground, air, or satellite will be developed with a partner. An exit is expected prior to ARR in 2027.



**Kyle Mohler, PhD.**  
**Founder & CEO**

BSc: Purdue University.  
 PhD: University of Edinburgh in Plant Biochemistry.  
 Raised on a now 3700-acre

Indiana crop farm. Experience in cutting-edge, patented scientific research. He knows the agriculture industry and has years of scientific research experience, leading to many publications and patents.