

Return on Investment of using the CropScan 3300H On Combine Grain Analyser:

There are three major benefits of using the CropScan 3300H

- 1) In Field Blending: Capture higher crop payments by blending low and high Protein grain to meet forward contracts, Protein graded wheat or malting grade barley.
- 2) Harvest Efficiency with Accurate Moisture Measurements: Confidence in stripping moisture laden grain due to rain or dew. Start Earlier...Finish Later.
- 3) Optimize Yield in the Field: Better Nitrogen management to increase Yield and Protein and reduce N fertilizer costs.

5 Year Strategy

Year 1:

- Collect field data for Protein, Moisture, Oil and Yield: 0%
- Capture Protein Premiums by blending grain in the field: 10-30%
- Harvest Efficiency: 5-10%

Year 2:

- Collect field data for Protein, Moisture, Oil and Yield: 0%
- Simple VRF Application in Red & Yellow Zones: 10-30%
- Reduce N Fertilization in Green Zones: 5-10%
- Capture Protein Premiums: 10-30%
- Harvest Efficiency: 5-10%

Year 3:

- Collect field data for Protein, Moisture, Oil, Starch and Yield: 0%
- Refine VRF Application in Red and Yellow Zones: 5-10%
- Refine N fertilization in Green Zones: 5-10%
- Soil testing and examination in Blue Zones:
- Implement Soil Remediation Strategies:
- Capture Protein Premiums: 10-30%
- Harvest Efficiency: 5-10%

Years 4 and 5:

Continue to adjust N Fertilization rates to Optimize Yield and Protein

- VRF Fertilization in Blue Zones: 10-30%
- Capture Protein Premiums: 10-30%
- Harvest Efficiency: 5-10%

Return on Investment Analysis:

Based on a 1000ha of planted wheat, the following payback may be realized.

Benefit	Yr1	Y2	Yr3	Yr4	Yr5
Protein Premiums	3000	3750	5250	6000	6000
Harvest Efficiency	700	700	700	700	700
Yield Optimization	0	64000	80000	96000	96000
N Fertilization Reduction	8438	3375	1688	0	0
Total Increased Income	12138	71825	87638	102700	102700
\$/ha	12.14	71.83	87.64	102.70	102.70
CropScan 3300H Lease	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
CropScanAg Solutions Subscription	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500
Total Costs	\$9,500	\$9,500	\$9,500	\$9,500	\$9,500
Return on Investment	\$2,638	\$62,325	\$78,138	\$93,200	\$93,200
ROI \$/ha	\$2.64	\$62.33	\$78.14	\$93.20	\$93.20

Conclusion:

Protein is the Missing Piece of the Precision Agriculture Puzzle. Measuring Protein in the grains provides a direct measurement of Nitrogen Availability and Uptake across the fields. To successfully implement Variable Rate Nitrogen Fertilization Applications, requires the measurement of both Protein and Yield to identify the Performance Zones where the addition of Nitrogen fertilizer will produce a Positive Yield Response. The potential Return on Investment for a CropScan 3300H On Combine Grain Analyser and the annual subscription to CropScanAg Solutions Farm Data Manager service, is 1500% p.a. No other on farm nutrient management system offers such a high ROI yet is based on real Nitrogen measurements and proven field trials.