American Vanguard Shareholder Meeting

June 5, 2019
In today’s call, the company may discuss forward-looking information. Such information and statements are based on estimates and assumptions by the company’s management and are subject to various risks and uncertainties that may cause actual results to differ from management’s current expectations.

Such factors can include weather conditions, changes in regulatory policy, competitive pressures and various other risks as detailed in the company’s SEC reports and filings. All forward-looking statements represent the company’s best judgment as of the date of this call, and such information will not necessarily be updated by the company.
Precision Ag Market Growth Projections

2018  $5B

CAGR (2018-2026)  15%

2026  $15B
Multiple Products Prescriptively Applied
One Simple Pass
One System
For insecticides, fungicides, nematicides, biologicals, and micronutrients

Dry and Liquid Products
Applied simultaneously

Prescriptive
Only apply what’s needed, when needed, where needed, and at rates needed

As-applied Field Records
Auto-created without operator input
Ultimus®

Closed System Packaging
No measuring or mixing

Refillable Containers
Pay for what was applied; return unused product

Container Traceability
From filling thru distribution, application, and return

Broadly Licensed
Allows application of products from many manufacturers

RFID tag on each SmartCartridge™ Container identifies product to ensure correct placement and installation
Environmental Sustainability
SIMPAS Development and Commercialization Timeline

2019
- Prescriptive Field Trials on Corn
- Liquid Pump Validation
- RFID Data Flow Testing

2020
- Limited Commercial Launch
- Combination Application of Liquid with Granular Products
- Refine Equipment and Systems

2021
- Full Commercial Launch
- Broaden Retail and Refilling Infrastructure

2022-2023
- Incorporate Synchronization Technology
- International Expansion
Precision “Placement” Technology

**Synchronized application** of input with the seed during planting, increasing profits and sustainability.

**Current Method:** Continuous In-Furrow Application

**Future Method:** Synchronized “Seed & Input” Application

Delivers in the ‘Seed Zone’ reducing total input applied per acre.
Value Capture Model

- Farmer Subscriptions
- License Fees
- Product & Cartridge Sales
- Hardware Sales
Business Process

1. Farmer acquires SIMPAS/SmartCartridge license
2. Farmer purchases SIMPAS equipment e.g. Trimble
3. SmartCartridge product containers sold through traditional crop protection distribution channel
4. Farmer obtains field prescription for SIMPAS-applied products from Crop Advisor
5. Licensed farmer buys SmartCartridge products from licensed retailer
6. Farmer prescriptively applies products
7. Farmer returns SmartCartridge to original place of purchase
8. RFID tags enable retailer to auto-credit farmer for unused product in returned SmartCartridge containers
9. Farmer only pays for actual amount of prescriptively applied product
10. Retailer uses RFID technology to refill SmartCartridges from SmartBulk™ containers
11. Farmer transmits all as-applied & yield data through cloud for spatial analysis
12. Farmer reviews analyzed data with Crop Advisor and prepares prescriptions for next crop
Domestic Base Case Forecast

- Over the next seven (7) years (2020-2026) the Company expects that sales of the SIMPAS system will ramp-up to approximately $160 million/year by 2026 based upon 2,900 systems over 8.7 million treated acres.

- During that timeframe, the Company anticipates that gross profit margins will rise from the low 30’s in the early introductory years to over 50% by the later years.
Initial US Market Opportunities

- Focus on 3 crops
  - Corn, Soybeans and Cotton

- Segments:
  - Nematode Control
  - Corn Rootworm
  - Other Soil Pest Control
  - Seed and Seedling Disease Management
  - Plant Health Stimulants
  - Micronutrients
SIMPAS Global Market Expansion

Phase I

Phase II