Emerging Technology in Agriculture
Choptank River Symposium
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Overview

- Regional – Not endorsing any brands!
- Agronomic Practices
- Precision Guidance
- Precision fertilizer application
- Precision planting
- Nitrogen Modeling
- New technologies
- Putting it all together
Agronomic Practices

• No till agriculture
• Strip tillage
• Cover crops
• “planting green”
Precision Guidance

- Parallel Tracking
- Auto steer
- Accuracy – sub inch accuracy repeatable year after year
- Change from past technology
Precision Fertilizer Application

- Starter – in-furrow application
- Multiple applications when the plant needs it
- Fertigation
- Manure usage – locally produced, slow release
- Grid sampling
Precision Planting

- Perfect population control
- Variable Rate seeding
- Maximizes yield on both best and poorest soils
Nitrogen Modeling

• Maximizes economic yield while minimizing fertilizer loss to the environment
• Real time picture of the soil environment
• Eco-N and Pioneer Encirca
New Technologies

- Drone usage – endless possibilities
- Targeted spraying
- Laser guided spraying
Conclusion

- Using less fertilizer while growing higher yields
- Timing and placement are key
- Cover crops as a nutrient sink
- No system fits every operation
- No system fits every year
- Every year is different, with new challenges that the farmer must manage to the utmost of their abilities!