

Benefits Of Automatic Section Control (Auto-Swath) Technology For The Southern US

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The adoption of automatic section control or auto-swath technology has been wide-spread across the US. Originally, this technology was developed for use on agricultural sprayers but more recently solutions for planters and other application equipment exist. Practitioners adopting this technology have experienced tremendous benefits including a reduction of overall input usage and increased field efficiencies. These benefits have resulted in economic savings on inputs but also improved environmental stewardship at the farm level. Therefore, this presentation will provide the current state of auto-swath technology including required components, proper setup and management of the technology, plus cover economic benefits for various crops grown in the Southern US. The cost of this technology is relatively cheap compared to other Precision Agriculture technologies such as autoguidance systems. In fact, farmers that have adopted application controllers and are using GPS receivers for various reasons may already have several of the components necessary to implement this technology. Therefore, only a few additional items are required decreasing initial costs. A recent study conducted at Auburn University indicated that farmers can experience, on average, about a 7% savings on inputs for their operation. Savings included using this technology on sprayers, planters, and nitrogen side-dress units. Payback period was 2 years or less and in some cases was around 1 year for this technology. Using Alabama Cooperative Extension System crop production costs revealed an average savings of \$4.83 per acre per year when implementing on a sprayer and planter. In many cases, using this technology on N side-dress units as well as the sprayer and planter nearly doubled savings for any crop. The highest return was computed for irrigated corn which was around \$13.19 per acre per year. Field shape and size along with crops produced dictated the level of savings. This study highlighted why this technology is being readily adopted across the US. The potential input savings can be substantial especially considering current and expected cost increases for crop inputs. Δ