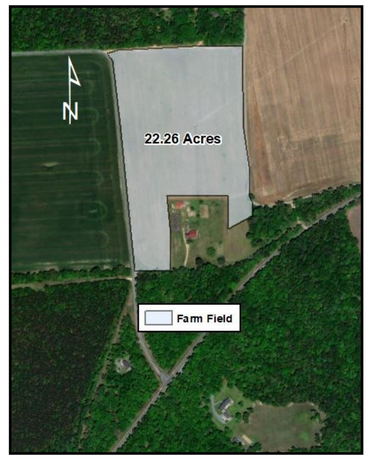
Precision Agriculture

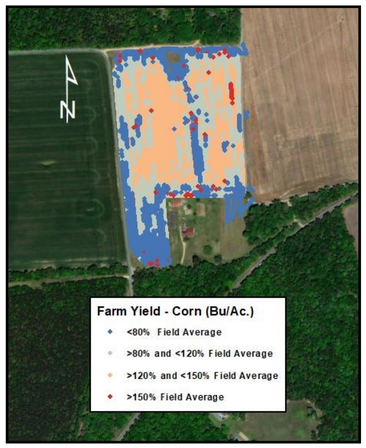
Precision Agriculture can mean different things to different people, but generally, it is a management strategy where location, soil, climate, and hybrid-specific information is used to grow a crop on a particular farm field.

Precision Agriculture frequently involves using georeferenced data collected by farm equipment, like the soil mapping implement (A), or the combine harvester (B). Some farm field-level management decisions can be made simply by reviewing records and notes from years past, like where equipment access is poor (C) or surface water ponds (D). Changing Management based on this type of information can be quite helpful in the long run.

How Does Precision Agriculture Work?

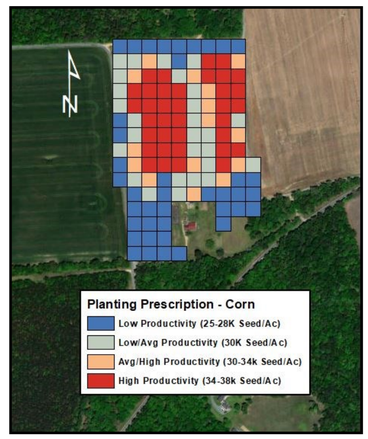
A farmer may want to improve on their use of resources (seed, fertilizer, etc.) that they invest in a farm field in a given crop year; this may save money, reduce the impact on the environment, or generally increase the efficiency of the farm operation.





Observations and data from the farm field in prior years can be used to inform future management decisions. Such data often includes information on crop harvest, like the map on the left for example.

After analysis, a field “prescription” can be created out of different management zones The map on the right showcases small management zones that could be used during planting to ensure more resources go to the areas in the field that have had a better history of producing more crops.



The Colonial SWCD has been assisting farmers with precision agriculture techniques and programming for over a decade, and provided financial assistance to area farmers in excess of $200,000 in just the last few years!. This has been made possible by programming partnerships with The Virginia DCR, the Virginia Environmental Endowment, SWCDS throughout the region, our technical service provider community, and the farmers themselves, some of whom lead the nation in advanced farming techniques.