

Field-level detail on a global scale: Planet's Agriculture Monitoring solution

Over the last decades we see a significant gain of acceptance of satellite based technologies in Agriculture. While GPS technologies were used for precise positioning, satellite imagery became an important source for vegetation status mapping. With the implementation and improvement of precision agriculture approaches the need for high frequent high resolution optical satellite imaging is growing rapidly. Beside scouting fields and consulting with growers, also supporting the work of large global retail operation requires monitoring at scale.

For Planet, this is being achieved by launching a fleet of more than 150 micro-satellites, allowing for full global land coverage at 3.7-3.9 meter resolution every single day. As a result, Planet operates the largest constellation of earth-imaging satellites in history providing a reliable data accessibility not only for agriculture purposes. Planet's always on system doesn't need any tasking. It's unique imaging capacity increases the chance of having an image when its needed.

Planet's advanced data pipeline and platform allow for fast and convenient access to high-frequency multispectral satellite imagery. APIs are created allowing for integration of Planet's web-ready imagery into the tools and operational workflows its customers use today.

With frequent imagery coverages users look for relative gains or issues by monitoring the crop growth through the season. Connecting in-season data with the cumulative historical imagery baseline helps to guide the management practices to apply inputs in the right zones at the right time, thus optimizing yield and minimizing cost while reducing the burden on the environment.

Even more frequent image coverages can be provided, although the spatial and temporal resolution is lower, when combining Planet data with Sentinel-2 and LandSat data which are also available in Planet's platform. Besides that, SkySat data is available for VHR purposes. With a full complement of 13 extremely agile satellites, Planet is able to support the CAP with 80cm PAN and 1-2m MS data in RGB/NIR.