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Trimble Adds Vegetation Health Monitoring Service to its Connected Farm Solution

SUNNYVALE, Calif., June 19, 2014 /PRNewswire/ -- Trimble (NASDAQ: TRMB) announced today that it is adding another new agronomic service to its Connected Farm™ solution. The PurePixel™ Precision Vegetation Health Solution provides special processing of multi-spectral images used for crop health analysis. Field images processed with PurePixel technology provide farmers and their trusted advisors with a visual representation of the selected field's crop health or maturity level based on a color-coded index. Since PurePixel filters out non-crop artifacts such as soil, shadows, and surface wetness, it can be used on fields with newly emerged vegetation or fields with full crop canopy.

PurePixel produces a vegetation vigor index map, which is a calibrated representation of vegetation health that can be used to track crop growth and measure the magnitude of difference between areas. Because PurePixel maps use a calibrated index, users can compare multiple images of the same area and visually detect changes in crop health over time. This feature is especially useful for monitoring expected progress in crop growth or improvements in crop health when treating underperforming areas within fields.

"With PurePixel's more accurate and comprehensive vegetation health data, Trimble is providing farmers and their trusted advisors with another tool they can use to make better decisions," said Levi Kettle, Connected Farm business area director of Trimble's Agriculture Division. "The challenge with spatial data such as imagery is interpreting the results that lead to accurate and efficient decisions. By removing the 'noise' and delivering precisely geo-referenced field-ready maps, PurePixel enables trusted advisors to be more efficient in locating, identifying and solving crop production problems."

"PurePixel imagery has been a critical part of my farm management and consulting for years," said Steve Harrow, certified crop advisor for Trinity Ag Services. "With the solution I can cover thousands of acres and then go immediately to problem areas long before I would have detected them from walking fields. The imagery gives me an early warning system, so I can navigate to problem areas in my fields, diagnose the problem, and then write a prescription—all before we suffer economic losses."

PurePixel allows users to:

- Save time by quickly viewing large areas and identifying specific locations where issues may be present, enabling the farmer or trusted advisor to travel only to the targeted areas versus scouting the entire field
- Make timely early-season decisions on newly emerged crop with PurePixel's ability to significantly reduce image noise enabling critical decisions to be made prior to full crop canopy
- Identify differences in crop health and maturity even when crop health is generally strong
- Assess changes in canopy size and quality by analyzing multiple PurePixel maps from the same field within a season or over several seasons

PurePixel is an additional product Trimble has added to its newly launched agronomic suite of services. These services also include the [Soil Information System™ \(SIS\) solution](#), a revolutionary soil analysis mapping technology. When PurePixel is used in conjunction with SIS, the savings can be significant. For example, a 200-acre vineyard saved 40 percent on inputs by leveraging both services leading to an annual savings of \$300,000. In addition, the vineyard also was able to maximize its water use.

PurePixel images are accessed through the Connected Farm, which provides one central location for accessing key information impacting farm operations such as rainfall totals, weather forecasts, commodity tracking, planting coverage, yield mapping, fleet management, aerial imaging, and irrigation monitoring and control. With this information a farmer can make better decisions about his operation. For example, knowing daily rainfall totals can determine whether irrigation is needed, while wind speed data may be the deciding factor on whether to spray a given field or delay the activity. Comparing data from the Connected Farm Scout app or from aerial images against yield, soil, and field maps can aid in deciding the best seed variety and amount to plant in each portion of the field. To maximize fleet performance, Connected Farm's fleet productivity reports can reveal a problem area where efficiency can be increased.

The PurePixel solution is currently available, and can be purchased using the Connected Farm Web site at: <https://field.connectedfarm.com>. For more information on PurePixel, visit: www.trimble.com/agriculture/purepixel.

About Trimble's Agriculture Division

Trimble Agriculture solutions enable customers to maximize efficiency and reduce chemical and fertilizer inputs while also

protecting natural resources and the environment. Trimble's precision agriculture solutions cover all seasons, crops, terrains, and farm sizes, and its brand-agnostic strategy allows farmers to use Trimble products on most vehicles in their fleet—regardless of manufacturer. To enable better decision making, Trimble offers the Connected Farm solution which allows farmers to collect, share, and manage information across their farm in real time. To optimize water use, Trimble provides water solutions for irrigation, drainage, and land leveling. Trimble's product suite includes vehicle and implement guidance and steering, as well as a portfolio of correction options that are the most versatile of their kind in the industry. Additional solutions include an unmanned aircraft system (UAS) for aerial imaging and mapping; application control for seed, liquid, and granular products; a harvest solution; and farm management software.

For more information on Trimble Agriculture, visit: www.trimble.com/agriculture.

About Trimble

Trimble applies technology to make field and mobile workers in businesses and government significantly more productive. Solutions are focused on applications requiring position or location—including surveying, construction, agriculture, fleet and asset management, public safety and mapping. In addition to utilizing positioning technologies, such as GPS, lasers and optics, Trimble solutions may include software content specific to the needs of the user. Wireless technologies are utilized to deliver the solution to the user and to ensure a tight coupling of the field and the back office. Founded in 1978, Trimble is headquartered in Sunnyvale, Calif.

For more information, visit: www.trimble.com.

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