

# SGS EXPANDS FERTIGATION MONITORING SERVICE TO AFRICA AND EUROPE

Following the success of its fertigation monitoring service in Peru and Argentina, SGS has launched the service in Tunisia and Egypt and will roll it out to Spain, Morocco and Chile in September.

Launching this service in countries across Europe, Africa and South America will help growers in these important crop producing regions to make informed, timely decisions and apply nutrients and fertilizer to maximise plant growth and production.

## INNOVATION IN ACTION

In a world where population growth and increasing production costs force the agriculture industry to look for innovative ways to optimise production, improve quality and deliver more quantity with the same resources, our fertigation service enables existing processes to be monitored and improved. SGS continues to lead the development of new techniques for these challenges by applying intelligent solutions for controlling and improving harvests. Fertigation monitoring reduces costs and optimises resources.

## IMPROVED UNDERSTANDING

How well do producers understand the effects and impacts of different elements on propagation, flowering, fruiting and the final harvest?

Fertigation enables producers and growers to dose plants with additional nutrients and fertilizers, or to correct nutrient deficiencies. Better understanding starts with testing. Soil and water testing takes analysis one step further, increasing understanding of naturally occurring nutrients in the soil and the uptake of nutrients added through fertigation. Together, plant tissue, soil, water solution and water analyses empower growers to take decisive action, to improve the health and productivity of their plants.

## ANALYSIS IN DETAIL

Expert analyses and interpretation ensure monitoring becomes an important decision-making tool. For best results, it is recommended that monitoring, in the form of frequent testing, should be conducted on crops utilising irrigation systems, such as:

- Drop-by-drop.
- Sprinkling.
- Micro-sprinkling.
- Exudation.

A timely, regular testing regime enables growers to ensure crops receive the most appropriate, and consistent, combination of natural and additional nutrients. Recommended laboratory analyses include:

### Plant tissue testing

Plant tissue testing analyses identifies the concentration of elements, and guides decision making about the use of fertilizers. Typically, this testing will measure nitrogen (N), phosphorous (P), calcium (Ca), potassium (K), magnesium (Mg), sulphur (S), chlorine (Cl), sodium (Na), manganese (Mn), zinc (Zn), copper (Cu), iron (Fe) and boron (B).

### Soil testing

In addition to looking at nutrients (Mn, Zn, Cu, Fe, B), soil testing also examines the texture, organic matter, available phosphorous and potassium, exchangeable cations and anions, ClC, calcium carbonate (CaCO<sub>3</sub>), pH and electrical conductivity.



1. Lysimeter or suction probe being installed in the field after the hole was made with the blast hole



2. Suction probe ready on the field



3. Just after the lysimeter or suction probe has been installed in the field, some water has to be put around it to assure it's well placed



### Irrigation water, soil solution, fertigation water testing

The focus for this testing programme is pH, electrical conductivity, nitrate levels (NO<sub>3</sub>), phosphorus (H<sub>2</sub>PO<sub>4</sub>), chlorine, sulphates (SO<sub>4</sub>), HCO<sub>3</sub>, Ca, Mg, Na, K, B, Zn, Mn, Fe and Cu. Soil solution samples are extracted using probes/ lysimeters.

#### NEW APPLICATION FOR FERTIGATION MONITORING SERVICES:

Fertigation monitoring can also be used on golf course. Golf courses demand huge amounts of fertilizer, especially nitrogen, which can lead to serious environmental problems and high costs. How well is nitrogen being applied to golf courses? Is the timing and quantity correct? Is it what the plant really requires?

#### FERTIGATION EXPERTISE

SGS, the industry leading testing, and certification company with expertise from soil to harvest, has been investing in the research and development of fertigation monitoring, to help the agricultural industry to optimise the use of water and fertilisers in the most efficient and environmentally sustainable way. Fertigation monitoring is provided in South America, Africa and the EU, for a range of fresh produce.

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4. Vacuum pump used in the field



7.



5.



8.



6. Generating a vacuum in the suction probe or Lysimeter to get the sample



9. Getting the samples from the lysimeter and putting them in the bottles for the laboratory analysis