



# Agriculture



Monitor your greenhouse 24/7 to maximize crop yield and minimize risks...



**Phalaenopsis (orchids)** are susceptible to ethylene; symptoms are bud dehydration and drop. Lasting damage occurs with an exposure to only 11 ppb (parts-per-billion) ethylene during 8 hours. Greenhouses are heated by gas-heaters, the exhaust gasses are sent into the greenhouse, as the CO<sub>2</sub> is beneficial to the plant growth. This is in fact a risk, when the gas-heaters are burning at a lower than 100% efficiency, a by-product is ethylene. Next to this the plants themselves emit ethylene when under duress. Growers counter this by the preventive use of chemicals. Apart from the environmental concern of these ethylene busters the additional costs can be substantial.

**Wouldn't it be great?** To constantly monitor the ethylene concentration in the greenhouse to save on the use of chemicals.

While the question is in fact a request for a simple and cost-effective ethylene sensor we took it a step further by including all current sensory equipment (temperature, humidity) and ethylene into one single application accessible via a smartphone. We also included a mobile unit that measures the same conditions in the truck during delivery. This can be used as proof the plants are handled with care until they reach the destination.

