INVIVO

Institute for trace gas technology

Make better shelf-life predictions

Optimize your logistic chain

Improve your product quality

Listen to your flowers and optimize your logistic chain

Perishable products like cut flowers, fruits and vegetables have a limited shelf-life. Not only time passing, accompanied by metabolic processes of the products, but also the varying conditions of the processes (temperature, humidity, etc.) in the logistic chain reduce the obtainable shelf-life. At the moment there exist no objective tool to predict the shelf-life of the processed products in the logistic chain on a product or charge level. Only mean values for the shelf-life of the products exist derived from previously processed products. They depend on the product, the producer and the logistic path.

Our solution

Our innovative application allows the online prediction of the shelf-life on a product or charge level while the product is processed in the logistic chain. It is based on the continuous or repeated measurement of the stress indicator and plant hormone ethylene throughout the logistic chain. Based on those values the changes in the plant response due to the logistic processes can be observed and our smart algorithm is able to predict the future behaviour (shelf-life) of the products.

How does it work?

To get started with our solution, connect the ethylene sensors along your logistic paths (cold/storage rooms, shipping containers etc.). You can either use the sensors you already purchased and integrated into your facilities. Or we install the sensors of our partners which suits best to your needs and calibrate the application. The measured data is transferred continuously and the predicted shelf-life will then be online accessible through our innovative App.

What are the benefits?

By using our solution you get a transparent overview of the quality of your products. This offers you a wide range of optimization possibilities within your logistic chain and is leading to an overall improvement of the product quality. Especially the mean quality of your products will increase and the variation of the quality will decrease. With our solution this quality improvement can be easily documented and quantified so that you can prove the reliability of your processes.

Furthermore a transparent product quality with a reliable shelf-life prediction can save approximately 10–30% of the actual energy costs occurring during the logistic processes.

Invivo GmbH

Our team has more than 20 years of experience in measuring gases at trace amounts, developing new applications in all fields of life sciences. Combining the knowledge of gas sensing with modelling capabilities we can offer a completely new approach to predict the shelf-life along the complete logistic chain.

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