DETERMINING THE QUALITY AND SHELF LIFE OF APPLES FOR DISTRIBUTORS

These days, it is very important for distributors of apples to know the quality and value of the produce, as well as their storage capability. Which apples need to be sold first, which batch can be stored over a longer period? The quality and shelf life can be judged using parameters like contents of sugar, acids and the firmness of the fruit flesh. But how exactly do you do this?

THE CHALLENGE

- Measuring the ripeness and quality of apples at the Point-of-Purchase is invasive and destructive and leads to fruit loss
- Not being able to determine the ripeness of the apples leads to overripe batches and increased amounts of food waste
- In Germany approx. 11% of apples end up in the rubbish each year due to weather conditions, as well as transport and storage issues
- It is not possible for the distributor to set the price according to the quality of the apples

ASTOUNDING REAL LIFE DATA

- The science of growing apples is called pomology
- There are more than 7,500 apple varieties in the world
- Only about 6-8 varieties of apples are offered in the average store
- Apples are one of the top five most popular fruits in the world

THE CURRENT APPROACH

- Measurements of sugar, firmness and starch index are carried out using several different devices and complex methods which are time consuming
- All those methods are destructive
- Background knowledge, experimental skills, and occasionally chemicals are needed

THE BETTER WAY

- A spectroscopic sensor can determine all parameters using only a single device
- Apples are not destroyed during measurements
- Less time consuming and less lab equipment required by replacing current methods with Senorics material sensing solution

THE SENORICS SOLUTION

Senorics’ innovative spectrometer-on-chip sensor solution enables:

- Fast and non-invasive determination of relevant parameters such as sugar and acid content, firmness and starch index
- All-in-one measurement with a pocket-sized device, no chemicals or lab equipment required
- Simple measurement execution and direct display of result

THE BENEFITS

- Direct feedback to the producer about the quality of the apples
- Ability to set appropriate prices
- Ability to determine the apples shelf life and sell them at the right time
- Less food waste, apples can still be sold after taking the measurements and batches won’t be over-stored

THE NEXT STEP / GET IN TOUCH

Are you interested in our solution? Please visit our webpage for more information or contact us.
Are you facing similar challenges in your process? Let’s join forces to solve your challenge.

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USE CASE SUMMARY

AGRICULTURE