

Custom-made texture and flavour result in bitter masking swallowing gel





'Wageningen Food and Biobased Research succeeded in solving the challenge to mask bitterness and formulate a gel with the desired texture to ease swallowing. For patients struggling with oral intake of medication, this improves their medication compliance and their quality of life.'

(Rene Mijs, IMS Medical)

Background

Pharmaceutically active ingredients often have a bitter taste. When pills are swallowed as such, this bitter taste is mostly not perceived. However, when patients – often elderly people or children - have difficulties to swallow pills, it can be a solution for some types of oral medication to grind or crush tablets into powder. This powder is then often mixed with food, such as apple sauce or yoghurt. Unfortunately, the bitter taste can then be strongly perceived and can be very aversive. Furthermore, unwanted interaction between the food and the medical compounds is possible.

Research aim

Therefore, intake with a good tasting gel, that eases swallowing of whole pills and powders, that does not interact with the medical compounds, and that masks/reduces bitter taste is desirable. In order to complement their medicine grinding equipment and disposables, IMS Medical assigned Wageningen Food and Biobased Research to develop such a swallowing gel. This gel should provide a suitable texture for swallowing medicine, have a good flavour on its own, and mask bitter taste.

Product development

Different texture and taste variations have been evaluated in a consumer test with elderly people familiar to intake of medication. The combination of one texture with the flavourings « anise » and « coffee » was appreciated and selected for product launching.

With our expertise, we can provide solutions to develop products with custom-made texture and taste. The products can be evaluated by our consumer sensory panels.

Benefits

- Eases the swallowing of tablets and powders
- Quick passage of medication through the throat
- Suitable for diabetics and patients with common food allergies
- Masks bitter taste of medication
- Taste and texture selected by consumer panel of elderly people

Result

- Transparent and stable gel
- Long shelf life
- Two flavourings: anise and coffee
- IMS Medical successfully introduced their bitterness masking swallowing gel called "Severo Swallowing gel" on the market in June 2018.



Information

Wibke Roland T +31 (0)317 48 53 50 E wibke.roland@wur.nl www.wur.eu/wfbr

Liesbeth Luijendijk T +31 (0)317 48 03 16 E liesbeth.luijenduik@wur.nl www.wur.eu/wfbr