

Centre of Expertise for Plant Compounds: Extracts Library now operational!

Makes a flying start with remedy for tulip disease fusarium

LEIDEN, 14 DECEMBER 2015. Plants contain a wealth of useful compounds. Yet this rich source is not sufficiently tapped due to lack of information about these plant compounds. From today, however, the Kenniscentrum Plantenstoffen [Centre of Expertise for Plant Compounds] is bringing change to this situation by opening the Extracts Library: a library of plant extracts and the compounds they contain. It has already had one success: a compound has been found in a plant grown in the Dutch horticulture sector that can be used against Fusarium bulb rot in tulips.

Stimulus for the horticulture sector

Until now, the wide variety of usable compounds in plants has not been sufficiently used, if at all. The Extracts Library offers plant growers and breeders valuable information about the 'hidden' compounds in the plants they grow. There are a huge number of compounds: around 30,000 different components per plant species. In the crops grown by Dutch horticulturists, the total is between 100,000 and 200,000 components.

The structure and effect of the majority of these components are still unknown. Many of the compounds may be successfully used in the pharmaceutical and agro-chemical industries, in cosmetics, as aromas, colourings and flavourings, food supplements or as an addition to animal feed. With the knowledge generated by the Extracts Library, growers and breeders will be able to develop into fully fledged suppliers of these (and other) high quality compounds.

Even before the Extracts Library was opened, a substance was found in one of the plant extracts which is effective against Fusarium. This is a stubborn fungus which causes a great deal of damage in tulip bulbs every year. Studies are currently being conducted into the possibilities of commercially marketing this plant substance.

Innovation due to cross-sector partnerships

The Extracts Library is a cross-sector partnership in which the horticultural sector works together on an international scale with other markets, industry and science. With the Extracts Library, the Centre of Expertise for Plant Compounds has created a platform where these parties can develop knowledge of plant compounds and use it for innovations. By screening and investigating plant extracts, compounds will be found for new applications. Knowledge organisations will benefit from the Extracts Library by using the extracts for applied and fundamental research. This will also produce new applications and innovations.

The importance of the Extracts Library for the South Holland region was underlined by the presence at the opening of Adri Bom-Lemstra, member of the provincial executive of the province of South Holland for the CDA party. In her interview with Jan-Douwe Kroeske, she emphasised the importance of cross-sector cooperation. She feels that innovations like the Extracts Library are vitally important to the Dutch knowledge economy and in particular for the South Holland *greenports*, the

horticultural clusters in the province. Stimulating innovations is an important goal of the greenports, which have a strong international orientation. They will therefore also play a key role in the development and exploitation of new applications for plant compounds.

International interest

The Centre of Expertise for Plant Compounds has attracted lots of international attention with the Extracts Library. For example, it is already working with the French Cosmetic Valley, the 'Silicon Valley' for cosmetics, on developing new cosmetic applications like aromas. There are also partnerships with the pharmaceutical industry and the food industry. The relevance of the Extracts Library is therefore in no doubt. With the active, international participation of horticulture, industry and knowledge institutions, the great value of the Extracts Library will soon become visible. The Extracts Library is expected to become the driving force behind the accumulation of new knowledge about plant compounds and the development of innovative applications with plant compounds.

More information

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