

## Scientists hope daffodil crop will help tackle dementia

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Farmers in Wales could soon be growing fields of daffodils to provide a cheap source of a compound used in drugs to combat dementia.

Trials to harvest the country's national flower - and Wordsworth's inspiration - for its medicinal qualities are under way and the scientist behind the idea hopes full-scale local production could begin next year.

Professor Trevor Walker and colleagues hope to perfect methods of extracting the compound from bulbs, and land in the Black Mountains has been turned over to supplying the raw material. Studies carried out with the Institute of Grassland and Environmental Research at the University of Wales, Aberystwyth, have been encouraging, said Prof Walker. "We were testing the theory that if we stressed the plants by growing them at altitude they would produce more of the plant alkaloid galanthamine, which has proven effective in the treatment of Alzheimer's disease.

"The tests showed that the compound was generally found in much higher levels in the daffodils grown at 1,400 feet in the Black Mountains compared with the same varieties planted in Pembrokeshire at sea level. Our elderly population will benefit by having this substance available to them at affordable prices. It will also help the local economy by giving Welsh hill farmers, some of whom are pretty desperate to eke out a living, something else to farm other than uplands oats or sheep."

Prof Walker is founder of a research and development company called Alzeim and he is talking to companies which could turn extract into tablet form. Natural galanthamine is gathered in wild plants of the snowdrop family, which includes the Narcissus or common daffodil, in the Balkans and in China. Synthetic versions are expensive.

Some of the work on daffodils has been financed by a rural development programme funded by the European Union. Its manager, Lee Price, said the success of the field trials "could be a godsend for our upland farmers as well as a breakthrough in the treatment of the symptoms of a terrible disease, which already afflicts more than 650,000 people in the UK".

Susanne Sorensen, head of research at the Alzheimer's Society, said the National Institute for Health and Clinical Excellence, the NHS value-for-money watchdog on drugs in England and Wales, had recommended that this drug be denied to people in the early stages of disease because of cost. "It would be nice to know that a drug that can help people with dementia can be produced locally. But the future of the availability of this drug is far from certain."

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