



## GERMANY

**Oregano as a substitute for antibiotics.** Since antibiotics began to get a bad name because of either the increasing danger of resistance or the residue issue, research has been looking for substitute substances. One promising alternative is oregano. In a comparative study on the treatment of calf diarrhoea the medicinal herb scored better even than some established classical antibiotics that are available on the market.

Even with acute diarrhoea the calves developed a better appetite and regenerated faster. For Reiner Mecking, a German feedstuffs expert, this was the call to start his own company – with the object of marketing oregano as an antibacterial feed additive in animal nutrition. In just ten years he has developed, with his company DostoFarm, an array of application fields for almost every important farm animal. As an example the marketing manager, Thomas Zinn, cites turkeys: “Oregano leads to higher daily weight gain, better feed utilisation and a reduced mortality rate.” Income gains exceed costs by a factor of about ten.

Since last year the company, based in Westerstede, Germany, has been testing the use of it in total mixed ration (TMR, see picture) to avoid reheating and to make the feed tastier. The increased salivation leads to better rumen stability and thence to reduced occurrence of acidosis.

Even arable farming is benefiting from the medicinal herb. In the Magdeburger Börde region in the eastern part of Germany DostoFarm has organised contract growing on several hundred hectares. After harvest the oil is distilled in the Aschersleben marjoram factory and processed into the final product in Westerstede. “To convince customers, the oregano oil must have an unvarying composition,” says Thomas Zinn. “We therefore demand adherence to strict growing directives and support farmers with our own crop adviser.”

## EUROPE

**Cutting methane generation.** Since cattle came to be viewed as ‘climate villains’, science has been looking for ways to



suppress the production of animal biogas in the rumen. In a joint study workers at ETH in Zurich and the University of Ghent have tested numerous exotic species, such as the soapberry tree or the Brazilian rain tree. The secondary substances they contain inhibit methane formation.

For conditions here in Europe, researchers at the University of León, Spain, discovered that alder buckthorn bark or garlic onions were more suitable. These reduce not only the generation of methane but also improve the ratio of acetic acid to propionic acid. Because of their pungent odours, however, they are not likely to appeal to farmers.

Which leaves just rhubarb, whose rhizomes and roots also kill the methane forming bacteria. Just don't throw the rhubarb in the biogas plant by mistake.

## SLOVENIA

**Selenium protects against sunburn.** Up to now it was common understanding that only animals and humans need selenium. But it seems that the semi-metal also has to be put on the list of essential micronutrients for plants. Several scientific studies suggest that selenium, under dry conditions, regulates the plants' water balance, postpones senescence and protects them from sunburn.

In recent years winegrowers, for instance, noticed an increased oxidative stress on vines because of high UV radiation.

Dr Mateja Germ and Dr Vekoslava Stibilj from the Jožef Stefan Institute of the University of Ljubljana, Slovenia, conducted studies that showed an increase in selenium storage in the leaves of buckwheat. With potatoes and pumpkins they noted raised