

# 'WORLD-FIRST' DRY INOCULANT FOR LEGUMES LAUNCHED

BY BRENDON CANT

■ A Western Australian company, ALOSCA Technologies, founded by two local scientists with grower support, is claiming a world-first in its development of dry granular legume inoculants that 'house' the rhizobium bacteria.

ALOSCA technical manager Chris Poole says ALOSCA inoculants protect inoculant viability from temperature and moisture stresses and also have the advantage of activating on the same seasonal triggers as the sown legume. This maintains the viability of the rhizobium bacteria until adequate moisture is available.

Independent field evaluation at Murdoch University's Centre for Rhizobium Studies (CRS) has shown the new granular carrier system enhances rhizobium survival when seeding into dry or marginal conditions and/or when there are delays in germinating rainfall. The bacterial culturing process was developed at the CRS.

Mr Poole says ALOSCA inoculants can be sown through standard seeding equipment or from a third or spare seed bin. He says that dispersing delivery of ALOSCA to the furrow

enables 'spread' nodulation, rather than a single 'crown' formation, and promotes nodulation deeper on the root system, extending fixation further into spring when the topsoil typically dries out.

Neil Ballard, of Ballard Pasture Consultants, Tincurrin, WA, says thousands of hectares of legumes are sown annually without inoculation because the traditional slurry method is messy and time-consuming.

"Dry-sowing legumes is attractive to growers as it leaves the ideal moist-sowing window clear for the cereal program," he says. "Before ALOSCA, when peat-based delivery was the only option, growers had to either sow early and risk subsequent nodulation failure, due to high rhizobium mortality before germination, or wait until they'd finished their cereal program."

Mr Ballard says this is costly in terms of legume production, as the cold soil and general growing conditions during winter reduce potential, whereas early seeding can



PHOTO: BRENDON CANT

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take advantage of early rain and warmer conditions. "Also, if farmers can get all their legumes to nodulate effectively and to their full potential, they save the time and money it takes to apply artificial nitrogen."

ALOSCA Technologies was started by researchers Dr Steve Carr and Dr Angelo Loi, who for many years were convinced the legume seed inoculation process could be transformed if a suitable medium were found to house the rhizobium.

After testing a range of materials they teamed up with Bill and Bob Scott, two Watheroo farmers who owned WA's largest bentonite deposits and were looking for alternative uses for the material.

Research resulted in the production of a dry, granular product that could provide all of the advantages that the team was hoping to achieve.



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