

## Keeping nitrogen in the soil and out of the air

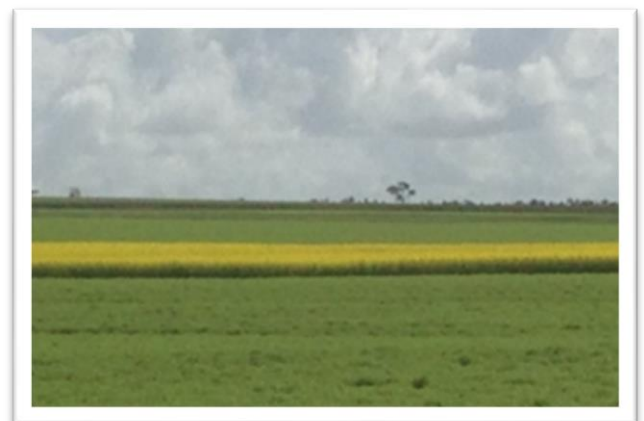
***Implementing management strategies to reduce nitrous oxide (N<sub>2</sub>O) emissions and improve agricultural productivity is the aim of a new project for the Hart Field Site Group (HFSG).***

Nitrous oxide is a greenhouse gas, primarily produced from agricultural activities such as fertilisation and breakdown of livestock waste. Recent research has shown there are a range of reduction strategies that may benefit growers both environmentally and economically.

Mr Nick Poole, Foundation for Arable Research (FAR) Australia is leading the project in collaboration with HFSG, Riverine Plains and Precision Agriculture Australia (SPAA). The objectives of the project are to measure and demonstrate on-farm strategies that can reduce N<sub>2</sub>O by trialling five key practices:

- Use of legumes in the cropping rotation
- Application of nitrogen (N) fertiliser at key stem elongation growth stages
- The use of precision farming tools to better measure N mineralisation
- Use of nitrification inhibitors
- Irrigated crops

The project is already underway at Hart with a commercial scale trial established near the field day site. In 2013 a block of lentils (legume) and canola (non-legume) shown in the image on the right, were established in preparation for trials in 2014. Planning for this year's trials will focus on the use of legumes in the cropping rotation to reduce artificial N fertiliser requirement, timing of N application and the use of nitrification inhibitors.



Stay tuned as project outcomes will be delivered through specific fact sheets, workshops and at our core events over the next three years of the project.

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