



Liquid fertiliser for OSR establishment:

# Feed, seed and cultivate in one pass

For joint venture farming group NDR Arable, the quest to reduce its fertiliser bill has resulted in some out-of-the-box thinking. One of the adopted approaches has been to use a liquid fertiliser applicator when establishing oilseed rape with a subsoiler

**E**stablished in 2008, NDR Arable has been on a mission to trim costs across its 1,272ha of crops in Oxfordshire. The group was initially formed by three members, and a fourth member signed up last year. One of the members, Ed Deeley, is responsible for day-to-day running of the group's farming operation.

"The group is now at a good size. We're all a similar age and want the same things," explains Mr Deeley. "We still have plenty of capacity and could happily take on extra land, either as a contract farming agreement or as an individual contracting job."

Each group farm is responsible for buying and selling its own produce, whereas items such as wearing metal, diesel and machinery are looked after by the joint company. Each member also has a tractor to hand, which can be put to work during busy periods and hired to NDR.

Rather than heading down the popular route and plumping for one monster prime mover, the majority of the group's cultivation work falls to two Case IH Magnums. Mr Deeley says that, after working through the figures, he still finds it cheaper to run the two smaller tractors, a Magnum 310 (2008) and a newer 335. These two units clock a respective 400 and 600 hours each season, with the more powerful tractor tackling cultivations with a Väderstad TopDown 500 across the majority of ground under NDR Arable. A 6m Rapid takes care of the drilling.

For its first season working as a group, NDR employed a Simba SL 400, equipped with a Stocks seeder, to cover the then 954ha. The group subsequently boosted its cultivation armoury for the '09 campaign with a He-Va



By working together, Ed Deeley says that NDR Arable's four group members can spread costs and focus on other parts of their businesses. Total cropped area farmed by NDR is 1,272ha.



For the past two seasons NDR Arable has been using a subsoiler and OSR establishment set-up. Liquid fert is applied with the seed (see pics on p55). Power comes from a Case IH Magnum 310.



The in-cab control box enables the operator to alter the liquid fertiliser rate on the move.

five-leg subsoiler, with an Opico Hatzenbichler seeder for establishing oilseed rape in one pass. Critically, this latter combination also has the capability to apply liquid fert to get the crop off to a strong start.

Mr Deeley explains that the soil types can change dramatically in the same field, ranging from heavy clay to sand. NDR Arable uses a four-year rotation, with all group members working together to decide on what crops to grow and the 1,272ha split four ways. A first wheat tends to be followed on by rape and then another wheat crop. The remaining block of 300ha is usually divided between linseed and spring beans.

Group oilseed rape establishment is generally underway by mid-Aug. Conventional seed is sown at 60-80 seeds/m<sup>2</sup>, whereas this target is dropped to a slightly lower 40-55 seeds/m<sup>2</sup> for hybrids, although both figures can still be tweaked depending on the prevailing sowing date, soil type and conditions.

The original subsoiler plan was to remove some pressure from the main cultivation rig while also carrying out rotational lifting/loosening, with the result that the Simba SL would be responsible for two thirds of the rape establishment and the He-Va outfit

would deal with the rest. For its first year with the subsoiler-based seed and fert combination, NDR decided to use it on just some of the lighter land. Mr Deeley points out that the combi worked well, taking pressure off the Simba SL as intended. The subsoiler also helped to remove compaction, so that the SL's tines could be kept up at the 20-30cm mark and not used for pan busting.

"Although we initially restricted the subsoiler to the lighter land, for our second season we also ran it across some heavier ground - but only when conditions were nice and dry. If this ground gets wet, we start bringing up livery muck," says Mr Deeley. "You do have to get your head around the fact



The subsoiler band sows the rape seed into 60cm wide strips above the loosened soil.

that you are not tilling a seedbed and the crop still grows quite surprisingly. There's also less volunteer germination on the untouched surface, but we still apply herbicides for controlling any residual brome and blackgrass that's in the ground," he adds.

Depending on the amount of soil heave from the legs, oilseed rape sown behind the subsoiler can receive two passes of the rolls to improve seed/soil contact and moisture



Liquid fertiliser drops down directly behind each of the He-Va's five subsoiler legs.

## FARM FACTS

### NDR Arable

Staff | Two full-time, three part-time

Area | 1,272ha

Soil type | Sand to heavy clay

Rotation | Oilseed rape, winter wheat, winter barley, spring beans and linseed

Cropping | 600ha winter wheat, 300ha OSR and 150ha beans/150ha linseed

retention. With the Case IH Magnum 310 up front, the five-leg He-Va subsoiler is capable of covering 16-20ha per day at a travel speed of 8-12km/hr. At this rate the 9.0-litre Cummins motor consumes up to 25 litres of diesel per hectare, depending on leg depth and soil type. As far as wearing metal is concerned, each of the five points costs £45 and needs changing after about 60ha. When it comes to contracting work, NDR Arable charges the He-Va subsoiling rig out at in the region of £50/ha.

As previously mentioned, NDR's subsoiler

is also equipped with Opico's Nitro Jet liquid fertiliser kit for giving the plant an additional growing boost.

"Because the fertiliser is applied in a targeted band at 30kg per ha of N, the optimum take-up of fertiliser is achieved. In contrast, if this was a blanket application across the entire working width we'd end up with fert on the ground without any seed underneath, and that would be a

waste of money," comments Mr Deeley.

Oilseed rape crops established behind the subsoiler receive 80l/ha of N37 to provide the nitrogen requirement at planting and a further 120kg/ha of N in the spring with

## THE VOYAGER TRAILED SPRAYER from GM-R SPRAYERS

Bespoke by design



- ◆ Low-profile 4200, 5,000 litre tanks with full height anti-surge baffles
- ◆ Albatross 24-28 & 30 metre variable geometry contactor booms
- ◆ "Combi-Steer" Draw-bar and Axle steering
- ◆ 40kph Axles on "Comfort Ride" suspension
- ◆ 50kph Axles "Riding On Air" suspension
- ◆ Orbital-Plus re-circulation system
- ◆ "Hydro-filler 35" Chemical Hopper
- ◆ Norac Ultra-Scan auto boom height controller

GM-R SPRAYERS LTD

**Innovation  
Performance  
Value**

Holly Bush Farm,  
Buxhall,  
Stowmarket,  
Suffolk, IP14 3DP  
Tel: 01449 737482  
Mob: 07860 618903  
Fax: 01449 736495

Visit us at: [www.gm-rsprayers.co.uk](http://www.gm-rsprayers.co.uk)