

# OSR ESTABLISHMENT



A healthy stand of oilseed rape which has been planted with the subsoiler/seeder combination. Opico believes the system can be further advanced by using a band sowing system.

## A recent conference held by Opico took an in depth look at an oilseed rape establishment system which is gaining in popularity with UK growers. Andy Collings reports

Over the years, the methods of establishing oilseed rape have been more varied than for most other crops. At one extreme it has been sown after ploughing, cultivating and, at the other it has just been broadcast on the ground and told to get on with it.

But there is now a technique being used which is gradually being adopted by an ever larger number of growers – the use of a subsoiler and seeder unit which sows the crop immediately behind each of the subsoiler legs.



James Woolway, Opico's managing director says it makes little sense to apply a blanket fertiliser to ground which is not supporting a crop.

The system would appear to have its advantages – the subsoiler loosens the soil and also brings to the surface moist soil in which the seed can germinate. As such, it is a system that in most conditions helps to take the hit and miss out of oilseed rape establishment. The benefits of subsoiling of course also extend into following crops.

For Opico such a system is well suited to the company's product ranges, which include the Variocaster seed unit, Nitro-Jet fertiliser distributor and the He-Va subsoilers and presses.

But the company has also given this establishment system some further thought and, after considering the rows the crop is now grown in, has taken the view that it could be a crop which would benefit from being treated as if it were growing in bands.

Band growing implies that it is only the soil immediately around the plants which is cultivated, sprayed or given fertiliser – the land between remains untouched.

It is a system which the subsoiler and band sowing system clearly lends itself to but the first consideration must be given to the oilseed rape and

the effects such a system would have on its growth and the yield it provides.

On this score all appears to be well. For oilseed rape to achieve its full potential, one of the key factors is for there to be access for light to the lower pods so that they can fill with seed – which growing in wide rows allows.

It is now generally accepted that while an oilseed crop may look terrific at flowering with a dense canopy of gold, the light shielding effect on the plants' lower leaves will reduce yields significantly.

Using a subsoiler to create the 'drill' also provides an easy route for the plant's roots to travel downwards where there are good supplies of moisture and nutrient. Without this free passageway the oilseed rape plant, which is often considered to have 'lazy' roots, would be unlikely to travel so far.

There is one proviso though with the subsoiler system in that it does not work so well in heavy soils in dry conditions – the poor tilth and the deep fissures produced do not lend themselves to becoming a good, safe kindergarten for fledgling rape seeds.

Opico has given the system a name – till-seeding – and has worked to

# Oilseed Rape Establishment System

provide an enhanced version which could accommodate the band sowing concept.

With the rows as much as 55cm apart, the area of ground between the rows is left uncultivated with no fertiliser and as we shall see, through use of a new design of rolls, no pressing.

According to managing director James Woolway, it makes little sense to apply a blanket fertiliser to ground which is not supporting a crop.

"The first point is that oilseed rape roots will not 'chase' nutrients," he says. "Fertiliser landing outside their activity zone will be largely wasted as far as the crop is concerned but thoroughly enjoyed by weeds which will flourish and compete with the seedlings."

Bearing this in mind, it makes sense to apply the fertiliser in bands and avoid the unused land between. Depending on your viewpoint this is either a way of saving fertiliser or making better use of what is applied.

A dressing of 15kg/ha of nitrate as a blanket spread across a field equates to a 45kg/ha application in the banded area so there are clearly savings to be made – and this dressing does not exceed the maximum allowed in NVZ areas.

There are also savings to be made on seed costs by using the band sowing system in that the thinking should now be about plant numbers per row metre rather than plants per square metre.

Typically, the seed rate should provide about 25 seeds per row metre which will result in about 14 established plants.

So what is it that Opico is offering which allows this band sowing system to work?

The company's oilseed rape planter



The newest component in Opico's 3m oilseed rape drilling combination is the Synchro roller.

comprises four components – subsoiler, press, plus a seed applicator and fertiliser distributor which are both bolted on to the main frames.

Of the four, the most recent arrival is the press unit which has been designed to consolidate only the soil in the planted area and leave the untilled area well alone.

Designated the Synchro Roller, the bands are pressed by rubber tyres and, in the spaces between the tyres, there are smaller diameter T-profile metal rings which only have something to do when a large clod comes their way.

Interestingly, the tyres are currently inflated with air but anticipating problems of punctures and even bigger problems

extracting the tyre for it to be repaired; Opico says it will probably be filling them with foam.

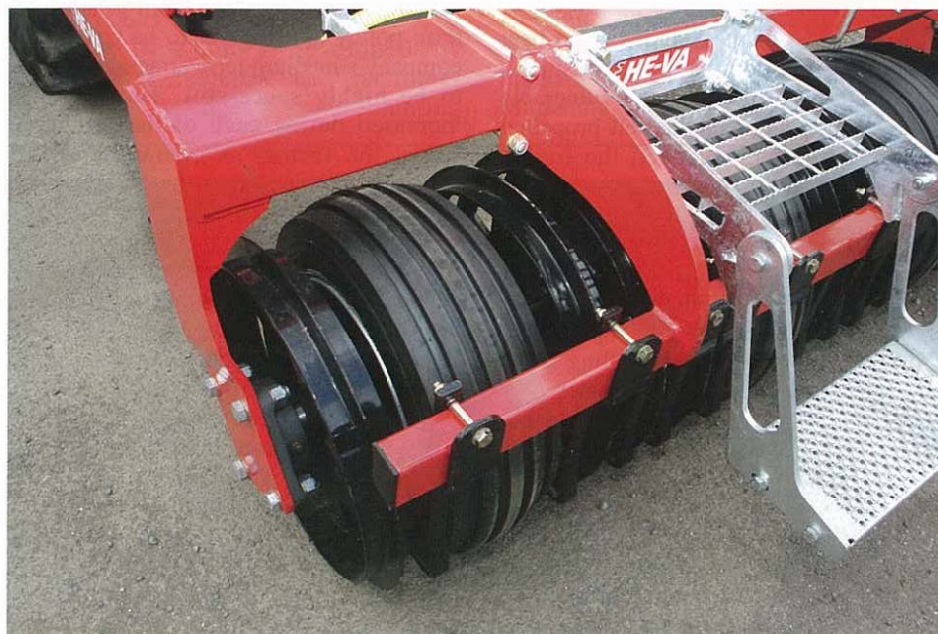
There is also some question or not whether the metal dividing rings will remain in the press – the company plans to assess their performance during the coming season.

Seed is delivered to the area behind each of the subsoiler legs by a pneumatic Variocaster which drops the seed from an open pipe so that they create a band of a few inches.

This is followed by liquid fertiliser applied from a Nitro-Jet dispenser using a high volume spray nozzle. For those who prefer to use granule fertiliser there is a distribution system available to accommodate this requirement.

The proof of the pudding is whether or not yields increase as a result. It would appear to be too early for this to be commented on but it's fair to say that Opico has pulled together the majority of the thoughts and ideas many have had regarding the establishment of oilseed rape.

Not, it has to be said are they that original, but combined as a system they might just put some uniformity into a job which has traditionally been either over worked, or severely under played. ●



Synchro roller: rubber tyres are positioned in line with the subsoiler legs and the seed/fertiliser placement band. Between them, smaller diameter rings break down the bigger clods.

### OSR establishment costs/ha compared

|                                     |         |
|-------------------------------------|---------|
| Till Seeding: – stubble cultivator: | £33.80  |
| Till Seeding: – subsoiler:          | £40.50  |
| Direct drilling:                    | £44.50  |
| Min-Till:                           | £125.20 |
| Plough-based system:                | £156.60 |