# Controlled application

Granular applicators saw a boom period as farmers searched the armoury to combat black-grass, now the versatility of the machines is shining through

Being able to mount applicators on cultivation equipment can help reduce passes and, therefore, costs

Operators should look carefully at what they are applying to make sure working widths, weather and soil conditions are appropriate

**Speaking to key manufacturers and representatives from crop protection chemical companies, the reduced efficacy of certain black-grass controls led to farmers and contractors investing in new granular applicators to apply Avadex.**

Standalone units mounted on or towed behind ATVs make up a sizeable proportion of sales with growing interest in combining the units with cultivation equipment and drills to reduce passes.

"Operators should be cautious about what they combine their applicators with and follow the application advice provided," explained Glenn Bootman from Opico. "Avadex, for example, should be applied on the very last pass to avoid potential damage to the crop, so we would look to mount on a roller, or in some systems, the drill."

The Opico Micro-Pro range is available with eight or 16 individually metered outlets with application widths up to 12m, either mounted on a cultivator or as a standalone unit with a 12m boom construction. The speed of the metering roller is automatically adjusted to match the forward speed and machines are tested ahead of delivery, with co-efficient variation levels at 5%.

Timing of Avadex application is crucial, says Barrie Hunt, from Gowan UK. "Not only should it be done as the last pass, we would also recommend that if it is too windy to spray, then it is too windy to apply Avadex. It has a means that operators should ensure they have the right equipment for the task, and that it is correctly calibrated. To maintain the integrity of the spread pattern, this also means keeping working speeds to about 8kph. For the best efficacy, it should be applied on a good, consolidated seedbed with a favourable moisture level.

"We offer dummy calibration granules to help set-up the machines but there needs to be a level of good practice as well – walking around the machine and checking for wear and pipe damage."

Horstine's Joe Allen agrees, noting that operators and manufacturers have a stake in keeping active ingredients on the market at a time of increased scrutiny.

"The Horstine range has been developed to offer the correct level of accuracy, with each distribution outlet having its own metering and airflow," he said. "Getting these small granules across the full working width with a minimum of variation is vital to maintain efficacy and show best practice."

The range includes boomed applicators and machine-mounted units, available for drills, rolls and cultivators, as well as the dual Twin Air system, which can be mounted a sprayer chassis for reported 36m working widths

## Multiple applications

The versatility of the units has played a key role in their popularity, said Henry Potter from Stocks Ag, which offers an extensive range of broadcasting and band-sowing machines, often mounted on the cultivator to reduce passes.

"These aren't the most expensive machines, but they are not the cheapest either and they're not a necessity, so that added versatility and the ability to move mounted units from machine to machine makes them very attractive," he explained.

Mr Potter added that the cost of an applicator is far outweighed by the potential crop losses associated with weed pressure and slug damage.

Mr Potter can see more uses for the machines in the future. Targeted application of chemicals is becoming more popular and new products to increase crop success are coming down the line. "We have tested with water-retention polymers," he said. "These would normally be used in very dry, arid climates but with more unpredictable weather patterns, there could certainly be a market in the UK."

Multiple applications are enhanced by simple calibration, says Steve Gowan, from ST Gowan, which imports the APV range of applicators. "Farmers want affordable units which will provide good coverage with whatever product they are applying," he said. "We can also help reduce operating costs further by applying multiple products at once by splitting the hopper. Some will spread slug pellets and fertiliser in one pass, or a mix of cover crops."

The versatility is further increased by being able to mount the APV applicators on any point of the machine, meaning it can be adapted to suit various products.

Techneat Engineering also offers a wide range of applicators, each designed to maximise versatility, with Avadex, slug pellets, cover crops, starter fertilisers, nematicides and soil treatments all within the company's wheelhouse. There's been a move to greater application accuracy on products such as the Outcast V2, with headland control, section control and a GPS rate controller.

As with all chemicals, more targeted application is required as greater scrutiny falls on active ingredients. The loss of metaldehyde in slug pellets is evidence of this and De Sangosse's Phil Carpenter explained operators should be following best practice no matter what is being applied.

"Visually checking your machines, getting the machines tested so that you can be confident in the application rate, the working width and the spread pattern should all be considered," Mr Carpenter commented. "When applying slug pellets, it's also important to select the right pellet for the field conditions."

Dry pellets are more brittle and dissolve quickly in water, he explained, so may not be suitable for application in a wet season or for wider working widths. Wet pellets have a different makeup and ballistic tendencies, and operators should be aware of this.

To control slug populations, sub-field and spot treatments may not be possible, Mr Carpenter added.

"Slugs move so erratically that it would be impossible to predict where they would arrive in the field," he said. "There are some tell-tale signs, but slug pellets are a bait control measure, so full-field application is the safest way to ensure a high level of efficacy. That is not to say precision doesn't have its place and we should definitely be looking at headland management controls to keep pellets out of watercourses and hedgerows."

Avadex granules to tackle black-grass should be applied during the last pass, either as a separate operation or on the back of a set of rollers, for the best possible control