

Utility and dedicated sprayers to suit budgets and demands

If you are looking to buy a sprayer, your initial choices may seem somewhat daunting. For most, however, a few key decisions can pretty much determine the main types of sprayer to consider, writes James de Havilland



Take a look at the range of amenity sprayers on the market and you can soon shortlist units that are suitable for work on a golf course. Key requirements include stability, a low boom operating height and a low ground bearing pressure.

Dedicated sprayers are also becoming a more popular choice for golf courses. Designed around a purpose developed chassis, dedicated sprayers are built just to spray and are ready for work pretty much as soon as they are filled and the booms unfolded.

Smithco from Ransomes Jacobsen

The Smithco Spray Star range of self-propelled sprayers is marketed throughout Europe by Ransomes Jacobsen, with the Spray Star 1000 targeting those looking for a manoeuvrable, lightweight sprayer. With a boom width of 4.5 metres it should deliver decent productivity too. Power comes from a 25 hp (19 kW) twin-cylinder petrol engine with traction power to the rear wheels.

Offering a travel speed of up to 20 km/h, the Spray Star is fitted with an elliptical 416 litres tank made

from cross-linked polyethylene with UV inhibitors to prevent degradation. Filling access is via a 41cm diameter hinged lid with nylon debris strainer basket. Tasked with tank agitation for even chemical distribution is via what Smithco describes as its 'Quadra-Jet' four venturi system. Agitation is an important aspect of sprayer design, some powders needing quite a bit of work to ensure they are thoroughly mixed prior to starting spraying.

Application rates can vary between 38-265 litres per minute with pressures ranging from 0.7-7.0bar and delivering anything between 180-2,050 litres per hectare. Productivity is put at 2.6 hectares per hour at 5.6 km/h. Users suggests 18 greens can be sprayed in well under 3 hours, this including the time taken to do a clean tank wash.

Spray control systems offered can cover fully automatic through to basic manual operation with boom types include a design with ground contour following wheels. Options and accessories include a choice of 12-volt electric or hydraulic boom lift, an electrically-operated foam marker system and clear water wash tank.

Built on the same platform, the

Spray Star 1000e drops petrol power in favour of solid-state 48-volt electric power. This model eliminates the chance of hydraulic fluid leaks and is also extremely quiet – a plus for those who wish to exploit still mornings for spraying. Features include positive ground speed control for the vehicle speed while spraying, a Raven SCS440 computerized spray control system coming as part of the package.

The next model up is the mid-size Spray Star 1750 which is claimed to be the only hydrostatic-drive model in its class. Fitted again with an elliptical polyethylene tank, the 1750 boasts a higher 662 litre capacity. Power comes from a 34hp (25.5 kW) three cylinder diesel engine.

Despite its higher capacity, the Spray Star 1750 has a ground bearing pressure of approximately 0.7 bar, hydraulic power steering easing manoeuvrability. The spray pump is a stainless steel centrifugal design equipped with a low volume warning horn and automatic air bleed. A choice of a Raven SCS440 computerised rate controller is offered, the sprayer having an electrical boom and pressure control system as standard. Simple manual boom and pressure control is the third choice.



INSET ABOVE: Spray Star sprayers are filled via 41cm diameter hinged lid.

MAIN ABOVE: Dave Callanan of Beech Park Golf Club uses a Smithco Spray Star 1000 and suggests he can spray 18 greens in around 2½ hours. Small, dedicated sprayers are ideal for those seeking to exploit spraying 'windows' quickly.



The Toro MultiPro 5800-D clearly illustrates how a dedicated sprayer differs from a demount alternative, doing away with the need for a demount structure reducing weight. Powered by a 35.5hp (26.5kw) Kubota diesel, the sprayer is fitted with Toro's Pro Control XP spray console

Wide choice from Toro

The Toro MultiPro 5800-D clearly illustrates how a dedicated sprayer differs from a demount alternative, doing away with the need for a demount structure reducing weight. Powered by a 35.5hp (26.5kw) Kubota diesel, the sprayer is fitted with Toro's Pro Control XP spray console.

The sprayer choice offered by Toro includes units designed to fit both its own Workman utility vehicle - as well as alternative makes - and a unit that will also mount on a trailer.

Among its more established designs is the Workman 200 Sprayer with a 757litre tank. Although it is a fully integrated fit to the Workman, the sprayer 'skid' mounts via an easy on/off system that is claimed to allow the unit to be fitted or removed in 20 minutes.

The aim is to have all the advantages of a dedicated design with the ability to free up the Workman for other work if required.

Equipped with a 5.6m boom, features include a mechanically-driven controller that is designed to automatically maintain the set application rate over varied

terrain and also accommodate variations in speed.

Toro has entered the dedicated sprayer market with its recently launched 1,136litre capacity MultiPro 5800-D. Powered by a 35.5hp (26.5kw) Kubota diesel, the sprayer is fitted with Toro's Pro Control XP spray console.

This is designed to provide an instant response to changes in the sprayers speed for greater application accuracy.

The sprayer is fitted with an exclusive six-diaphragm pump - claimed as an industry first - that offers twice the flow of more conventional designs to meet an increasing demand for high spray rates.

The sprayer also features a 'Cleanload Eductor' chemical induction system and an automated fresh water rinse system.

The standard 5.6m boom can be equipped with a lightweight Drift Reduction Boom Shroud.

This extends 30.5cm below the boom to minimise chemical drift. A further option includes an Ultra Sonic Boom Leveling System, which automatically adjusts the boom to the correct spraying height in undulating turf conditions.

Rounding off the company's line-up is the MultiPro 1250, a dedicated turf sprayer styled on Toro's Workman utility vehicle. Fitted with a 662litre tank, the machine is powered by a 20hp/15kW Kohler petrol engine and features a proportional drive spray-control system.

This adjusts the application rate in proportion to changes in vehicle speed. An optional enclosed boom is available.

BELOW: British made Team Sprayers are offered in a choice of demount designs and can be supplied with a range of standard or shrouded booms. Note the clean water tank for hand washing and induction hopper on pictured unit.



How a sprayer sits on the chassis of a utility vehicle can have a noticeable impact upon its centre of gravity. John Deere HD200 SlectSpray low profile sprayers are a good example, keeping weight low helping when traversing slopes.



Hardi Boss range demount models are offered with a wide specification choice, as well as models tailored to fit a range of utility vehicles. It is cheaper to specify what you want from the outset as opposed to upgrading to more advanced features at a later date.



The level of break back protection and contour following offered by booms varies. Wheels are designed to push the boom up if the terrain alters, but not run on the ground. Booms that break back in reverse as well as direction of travel help prevent damage when backing up to banks or other obstacles.



John Deere turf sprayer benefits from recent updates

The John Deere HD200 SlectSpray is an upgraded version of the company's 750-litre low profile sprayer first introduced in 2003. The HD200 can be specced with a choice of centrifugal or diaphragm pumps, manual or automatic rate controls and a range of boom options – the latter now come with electro-hydraulic boom lift and lower as standard. A common wiring harness is standard for all specifications, allowing the control system to be changed easily if required at a later date.

A CleanLoad chemical induction system is an option, the standard jet agitator ensuring the tank solution is mixed thoroughly. An integral tank wash system is also standard.

Designed as an attachment for John Deere's established 24hp ProGator utility vehicle, the 757 litre HD200 can be easily and quickly removed without tools. An optional storage stand incorporates wheels so that the demounted sprayer

can be moved around in a shed for storage and wheeled out for reattaching. The HD200 utilises the whole of the ProGator's load space to provide a low centre of gravity for stability. The design also provides the operator with good visibility.

All booms options have standard triple nozzle bodies and are offered in 5.5m or three-way folding 4.6/6.4m sizes. A bi-directional safety breakaway system is standard.

The boom operates at up to 50cm above ground level and at ground speeds of up to 16km/hr. Individual boom sections can be selected as required, and boom height can be adjusted manually if necessary. The sprayer also comes as standard with a throttling valve to deliver constant pressure no matter how many boom sections are operating at any one time.

In addition to the main tank, the sprayer features a 75 litre rinse tank, operator clean water tank and clothing boxes, plus foam marker and chemical tanks. Options include a 60m hose reel and spray gun.



Gambetti UK continues to hone its products to match the specific needs of golf courses. As an example, it has improved the Windfoil boom for tighter ground contour hugging on both positive and negative contours, made it height adjustable to cope with greens, fairways and semi rough and also added more clearance around the nozzles to avoid run off from the covers. Gambetti also offers BRAVO 180 sprayer rate controllers customised for use with golf course sprayers. The operator can select up to 5 different spray rates at the touch of only 2 buttons. The display shows application rate and speed.