



Roland Taylor takes a look at the vexing task of dealing with banks and slopes.

Banks come in all shapes and sizes and are either natural terrain or man-made – they vary from gentle slopes to steep inclines. Even the flattest courses will have some form of banking, if only around bunkers and tees.

Some banks are cut regularly. Others may be left to develop as natural barriers, only being mown when necessary. Where they form part of a stream or river, regular attention is required to ensure the free-flow of water, especially in winter, to avoid possible flooding. Banks are an ideal habitat for fauna and flora to establish, but even then they will require some mowing as part of their management.

There are a number of factors that need to be taken into account when considering the suitability of any machine. The most critical of these is the angle of slope as this will most certainly govern the final decision on what to buy. Ease of access also needs to be taken into consideration. Will it be possible to mow the whole bank from either the top or bottom? This is important when considering long-arm tractor-mounted units.

The condition of the surface is

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critical, especially on new banking where water erosion can cause minor landslides and the soil's stability may be questionable. On older established areas wildlife will probably have taken up residence. As a result, burrows and holes could be lurking beneath the undergrowth. All this could make operating machinery difficult.

The type of vegetation will very often determine which type of mower to go for, as will the quality of finish required. Armed with

answers regarding the above information where do you start? Buying the right machine is important not only from an efficiency point of view, but also for the safety of the operator.

The first test is, can the bank be walked on comfortably? If the answer is yes, either a pedestrian or ride-on mower is probably going to be suitable. If the answer is no, then some form of extended-arm unit such as a tractor-mounted flail unit could be a possible solution. While some

machines will appear to be stable on the bank the operator may find them very uncomfortable to use. This sometimes applies to ride-ons where the machine's angle becomes so acute that the only way to stay in any position is to sit on the side of the seat. Not only does this create considerable fatigue it is also very unsafe. Clearly in these cases an alternative needs to be sought.

The power source is also relevant – two-stroke engines are ideal. There are no lubrication



problems (unless the operator forgets to do it) because the oil is added to the fuel. Four-stroke engines may also be suitable at certain degrees. Make sure the engine specification is okay for the maximum degree of the bank that the machine is going to be used on. There may be a possibility that continuous use at acute angles could result in the engine being starved of oil resulting in premature wear and the increased chance of an engine seizing.

When using propelled machinery it is important to have some form of differential lock to provide extra traction, if the terrain is rough. A braking device is also necessary so the operator always has complete control of the machine.

Types of machine available

Brushcutters and clearing saws. These can be described as the replacement for the traditional scythe and will make light work of clearing fairly dense vegetation. Two versions are available – straight shaft or back-pack unit with flexible shaft.

Where access is not restricted and an operator can work comfortably without the risk of injury a straight shaft model is suitable. A range of cutter heads can be fitted so these machines will cope with vegetation ranging from grass, scrub to small trees.

In recent years the back-pack unit has become popular. The weight of the machine is carried on the operator's back like a rucksack – this greatly reduces fatigue.

The flexible-shaft-driven head allows the user to swivel it both horizontally and vertical. This gives greater freedom of movement and better balance when working on steep gradients or rocky terrain. Whether mowing ditches or banking it is recommended that cutting starts at the bottom and works upwards. Never should the cutterhead be above shoulder height.

Hover mowers

It can be said that these mowers changed the whole concept of bank mowing and today, four decades on since their introduction, they are still being used to keep steep banks looking tidy. A hover mower is suitable for keeping around bunkers and tees trimmed. When working these banks the operator should stand on the top, never on the slope.

Rotary, Flail and Reciprocating

These types of cutting systems are all favoured for banks where long, rough grass that is mown infrequently is likely to be encountered.

Most of the reciprocating cutterbar mowers available have been designed to work in the

mountainous pasture regions in Europe, so they are well able to cope with bank work in the UK.

All the machines in this category have pedestrian and ride-on models specifically built to work on sloping terrain, so ask your local outdoor power equipment specialist for details and a demonstration.

Long arm

The long-arm tractor-mounted mower is suitable for a wide range of applications. Like all the machinery described in this feature extreme care should be taken when using these flail heads.

The surface on which the tractor is to stand needs to be carefully checked. For example, the banks of a river or stream can be undercut by flood water and the sides could collapse without warning. The brink of a bank should be mown first so that any likely hazards are easily identified. Work out from the tractor and never reverse it with the arm fully extended or make high speed manoeuvres.

When choosing a machine always check the manufacturer's minimum specifications first. These have been set after the wheel base, centres of gravity, weight distribution and ballast options have been analysed. With this information the most suitable

unit can be matched to the tractor. It is recommended the tractor is fitted with an accumulator float device which makes the operation safer. Independent rear-wheels should be made active, to enable the operator to get out of a difficult situation should one arise.

Cylinders

There are slopes where cylinder mowers are used but the ground conditions on these must be smooth and stable. Generally the equipment will have to have a high degree of traction by the use of differential wheel locks, special tyres and weight transfer systems. At the same time it must be light enough not to damage the turf with wheel markings or scuffing especially when turning. There can be a considerable variation in the bank cutting abilities between different cylinder ride-ons.

There is plenty of specialist advice available and this should be sought when deciding which machine to buy. Make sure you view all the options before making a final decision.

Whatever equipment is used on banks, operator training is essential. They need to be fully conversant with the machine and aware of possible dangers. Bank cutting requires common sense – if it looks risky it is better left alone. Safety should always be the number one priority.