FIXING

- 41 Fix one end of the line wire securely to the strainer post before applying tension.
- **42** Knots may only be used on MS wire, otherwise suitable wire connectors must be used.
- **43** When using ratchets, ensure the wire always has at least two full turns on the ratchet barrel.

STRAINING

- 44 Ensure wire strainers are securely attached and anchored before tensioning.
- **45** Do not stand on or astride wire while it is being tensioned.
- 46 Never overtension HT or SS wire by using extra leverage or more than one person on the wire strainer. Never use a tractor to apply tension.

CUTTING

- 47 To avoid recoil always ensure that the exposed ends of wire are secured.
- **48** Always secure HT and SS wire on each side of the cutting point before cutting.
- 49 Take care not to spike the hands on loose ends.

BARBED WIRE

- **50** Always wear protective gloves when handling barbed wire.
- **51** When dispensing barbed wire keep it taut.
- **52** Take care to avoid breakage and recoil, particularly with HT barbed wire.

DROPPERS

53 If metal droppers are used, they must be fixed according to the manufacturer's recommendations.

AFTER WORK

54 Ensure that hazardous debris is removed to a safe place.

FURTHER READING

Using petrol-driven chainsaws	FISA301
Tractor units in tree work	FISA501
ATV quad bikes	FISA701
All-terrain vehicles	FISA702
Emergency planning	FISA802
Electricity at work: Forestry	FISA804
Training and certification	FISA805
First aid at work: Your questions answered	INDG214
Managing health and safety in forestry	INDG294

These publications are available from the FISA and HSE websites.

NOTES

Name:..... Checklist verified by:.....

Further information

This guide is produced by the Forest Industry Safety Accord (FISA) 59 George Street, Edinburgh, EH2 2JG Tel: 0131 240 1410 Fax: 0131 240 1411 Email: info@ukfisa.com

Copies of this guide and all other FISA priced and free publications are available by mail order from the FISA office or through the FISA website www.ukfisa.com. From here you will also be able to access a wide range of additional forestry safety information including frequently updated safety alerts.

This guide sets out evidence of good practice for a specific forestry task. Deviation from the guide should only be considered after a full risk assessment has been undertaken by competent persons. Health and safety obligations MUST be met at all times.

THINK SAFE / STAY SAFE

This publication is based on guidance previously published by HSE in AFAG104 Fencing, which was withdrawn in 2013.

For more general information about health and safety, please visit the Health and Safety Executive website www.hse.gov.uk



Fencing



FISA Safety Guide 104

Reprinted 03/13

INTRODUCTION

This leaflet covers the safe working practices to be followed when erecting and dismantling post and wire fences, but not woodwork fences.

You can use this leaflet within the risk assessment process to help identify the controls to put in place when carrying out fencing operations in forestry and other tree work.

For specific guidance on ATV quad bikes and other all-terrain vehicles see FISA leaflets 701 *ATV quad bikes*, and 702 *All-terrain vehicles*.

You must also assess the effect of the site and the weather as well as following this guidance.

All operators must have had appropriate training in how to carry out the tasks required (see FISA leaflet 805 *Training and certification*).

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- □ 1 Use the following PPE:
 - Gloves to protect against barbed wire, splinters, scratches etc.
 - Non-snag outer clothing appropriate to the prevailing weather conditions. The use of high-visibility clothing may also be appropriate.
 - Protective boots with good grip and ankle support (complying with EN 345-1).
 - Eye protection (safety glasses to EN 166) is strongly advised because of the danger from flying debris, particularly when dismantling old fences.
- **2** Wear protective clothing appropriate to power tools if they are used, eg ear, face and eye protection.
- **3** Each person should carry a first-aid kit including a large wound dressing (see HSE leaflet INDG214 *First aid at work: Your questions answered*).
- 4 Hand-cleaning material such as waterless skin cleanser or soap, water and paper towels should be available.

TOOLS AND EQUIPMENT

- **5** The tools and equipment selected will depend upon the type of fencing being erected/dismantled. Ensure that all tools and equipment are serviceable.
- G Tools and equipment must be well maintained with all cutting edges adequately guarded when not in use.
- 7 Do not place hand tools on the top of posts/stakes. Use a tool belt.
- 8 Report any defects.

MANUAL HANDLING

- **9** Follow best practice when manual handling.
- 10 Do not attempt to carry too much and adjust the load to suit the site conditions.
- 11 Lift the power tool using the leg and arm muscles. Keep the back straight.
- 12 Organise the delivery of fencing materials to minimise manual handling, eg mechanised unloading or team work at a prepared site.
- □ **13** Organise the layout of materials on the site to minimise carrying. Where practical use an ATV or quad bike.
- **14** Get help with heavy or awkward materials.

PREPARING TO WORK

- □ **15** Check the proposed fence line for underground hazards and services, eg cables, water and gas mains. Where present, ensure they are clearly marked.
- 16 Consult the local electricity company if working on fences within 40m of overhead power lines.
- 17 When dismantling fences check for vegetation growth which could make the behaviour of the wire and net unpredictable. Take particular care with old fences.
- **18** Unload a trailer from the top side or the rear when it is on a side slope.

TIMBER TREATED WITH PRESERVATIVE

- 19 Wear chemical-resistant gloves to handle timber which is still wet with preservative. (Dried preservative, or dried treated timber rewetted by rain is safe to handle.)
- 20 Do not use treated timber until the preservative has completely dried (up to 2-3 weeks after treatment).
- 21 Do not burn off-cuts of treated timber on site dispose of them via a licensed waste contractor.
- 22 If wood preservatives approved for hand application are used to treat cut surfaces, observe the safety instructions on the label – eye protection, gloves and overalls. Always use the least hazardous product.

HAND SAW

- **23** Make sure the material being cut is secured.
- **24** When notch cutting, keep the free hand clear of the saw teeth.
- 25 If a chainsaw is used, see FISA leaflet 301 Using petroldriven chainsaws.

MANUAL STAKE-DRIVING TOOLS

- **26** Do not support the stake by hand use a stake holder.
- 27 Do not test or adjust the stake by hand while the driving tool is being used.
- **28** Keep a firm stance with the feet and legs clear of the driving tool.
- **29** When using a stake/post driver do not allow it to be lifted above the top of the post.
- □ 30 When using a maul, ensure no one is close to or in line with the swing.

MECHANICAL POST/STAKE DRIVERS

- **31** This is a one-person operation.
- **32** If the post/stake driver is mounted to a tractor via a three-point linkage, the tractor must be large enough to remain stable during post/stake driving.
- 33 The machine must be properly parked and braked before post/stake driving begins.
- **34** There is a risk of flying debris from the driven post/stake. Suitable face protection should be worn.
- **35** The post driver should be fitted with a gripping device to remove the need for the operator to hold the post during operation of the machine.

WIRE MATERIAL

- □ 36 Line wire may be of mild steel (MS), high tensile steel (HT) or spring steel (SS). Barbed wire and woven wire mesh netting (eg hinge joint) may be of MS or HT and all other netting (ie welded and hexagonal) is MS.
- 37 SS is stronger than HT which is stronger than MS. SS and HT cannot normally be strained to breaking point manually. MS stretches before it breaks. Kinks, twists and surface damage increase the risk of breakage in all types.
- □ 38 HT and SS recoil much more dangerously than MS when cut, broken or simply released.

LINE WIRE DISPENSING

- **39** Use a dispenser when unrolling line wires to avoid kinking and twisting.
- **40** Ensure the wire is kept firmly in place on the dispenser.