Use of Tools in the Tree

**Guidance to the technical author:**

- *Please do not comment on items that are greyed out in this document as the context of this text will be supplied by the Arboricultural Association.*

- Throughout the guide there will be sections or boxes that will directly relate to the ICoP - please take note of these in your response.

- The tone of the document should reflect the intended audience, e.g. the climbing arborist, and should also reflect the relationship between this guide and the content of the ICoP.

- The document is also intended to provide reference for supervisors / team leaders; this will appear as summary ‘check list’ information in each section, generally reflecting the main items from the relevant AFAG Safety guide.

- Comments in green are provided to identify the expected information to be included within the technical guide.

- Please indicate where illustrations or photos should be included - you do not need to supply these but should either provide a rough sketch, or describe the important elements of any image.

- **When typing your response for each section, please use the TECH AUTHOR style.**
1 Introductory material:

Foreword by the Association and Acknowledgements - This would be a non-exhaustive list of those individuals who have provided significant contribution to the project.

1.1 Introduction:

Why the technical guide came about, development history and intended use.

1.2 Structure:

Clearly defining how the technical guide is framed into several parts and how these parts relate to each other.

1.3 Scope and limitations:

Who the technical guide is aimed at and who is excluded from it. Who the technical guide does not apply to, such as, tree climbing for the purposes of sport or recreation.
Draft Technical Guide scoping document:

Use of tools in the tree

2.0 Technical Guidance

2.1 General

competence, training, pre-planning, job packs, statement/diagram of pre-planning (b-f from 2.2.2 ICOP)

2.2 Planning and Management

2.2.1 Risk Control Systems and Emergency Planning

This section will include information to enable the practical arborist to understand the purpose of the risk assessment process and their role within it. We anticipate an illustration will be used here depicting a common work scenario relating to the guide title, identifying 15-20 hazards, accompanied by brief guidance on application of generic and site specific risk assessments. Risk Hierarchy for selection of tools ICOP 2.10.1

2.2.1.1 Emergency procedures

2.2.1.2 Method statements

2.2.1.3 Briefing of all parties

2.2.2 Other work site considerations

These will include comments on areas such as wildlife, utilities, TPO’s, biosecurity, traffic and pedestrian management etc.

2.2.2.1 Resources

These will be specific to the work operation and guide title, e.g. equipment in good working order and compliant with PUWER and LOLER, suitable for the job, present on site, equipment for rescue, first aid kit etc. Risk Hierarchy for selection of tools ICOP 2.10.1
2.3 Roles and Responsibilities

2.3.1 General

Will refer to ICOP 2.3.1 page 10 "proficient operator"; will provide suitable examples of the points raised with the proficient operator box in this section.

2.3.2 Communication

2.3.2.1 Purpose and benefit of communication

This will be specific to the guide title.

2.3.2.2 Knowing who to speak to and raising concerns

2.3.2.3 Types of communication systems

Will list examples, pros and cons of those examples, and any issues surrounding interpretation and confirmation of messages.

2.3.3 Supervision

See ICOP page 10, "competent person" box.

2.3.4 Operator Proficiency

This should be a brief statement which encompasses ensuring the operator has undertaken appropriate training and read manufacturer’s instructions for the equipment in use.
2.4 Work Site Assessment

2.4.1 General

This should cover areas such as safe zones, danger zones, layout and positioning of equipment relevant to the guide title; you should consider aerial rescue methods, site access and egress (any illustrations are to include a power-line example).

2.4.3 Tree Work Specification

Please cover standard Arboricultural terms in BS3998, define reductions measurements, where and how much, include diagram of target pruning, reduction cuts and heading cuts. Cover pruning cut sizes and ratio. Cover reasons not to top or over prune a tree and where appropriate to leave dead/decaying wood in the tree. (We envisage the use of pictorial guides, so please sketch out or describe image sequences). use Fig2 from BS3998 Position of final cuts.

2.4.4 Tree Condition Assessment

This should include an illustration and checklist highlighting key points of a visual tree assessment, with related task identified as a purpose for the tree work example. Diagram of tree with annotated hazards, examples of poor anchor points, e.g. pollard, previously topped tree, etc.
2.5 Work Methods

2.5.1 General

Use a 'decision tree' showing the process of selecting an appropriate tree tools /equipment selection for task and work method, (including the decision to not climb where appropriate ref. ICoP p. 24). This should also refer to tree climbing guide information on selecting an access method and planning a route or movement around the tree relating to the task.

2.5.2 Equipment Selection Inspection Care Storage and Maintenance

Use ICOP 2.12 1-9 pull out PPE to cover below. Ref FC Bio security protocols.

2.5.2.1 Selection of Cutting Tools, Aid Tool & Types

Please cover the pros and cons of each of the following related to task:.

e.g. Hand Saw, Chain Saw (fuel & battery), Pole saw, Pole pruner, Loppers, Secateurs.

reference made to manufacturer/ supplier information. (We envisage the use of pictorial guides, so please sketch out or describe image sequences).

Cover one-handed C/saw use, clear examples of extreme circumstances when it can be used, highlight risks, highlight benefits of two hands and better control and planned cuts.

2.5.2.2 PPE Selection for Cutting Tools

Please cover PPE selection relating to risk and potential harm or injury from selected tools, use examples, must include top-handled chain saw and hand pruning saw. Reference made to manufacturer/ supplier information. HSE guides; Include relevant items from AFAG 401. Reference to First Aid requirements
2.5.3 Using Tools

2.5.3.1 Preparation

Reference made to manufacturer/supplier information.

2.5.3.2 Equipment hauling

see ICOP 2.10.2, use of tool line or rigging line for larger saws.

2.5.3.3 Securing, carrying and storing equipment while working in the tree.

Please cover lanyards for chain saws and large items, scabbards for pruning saw, and position on the harness or leg. Statement to refer to user instructions of harness, for identification of rated tool attachments. Risk of hand saw being pulled through hand by lanyard. Methods for larger saws. Cover transfer of tools from line to harness, by use of tool-storage clips or 2nd attachment.

2.5.3.4 Performing cuts from a work position

2.5.3.5 Examples of cutting methods with a hand saw

Please cover removal of branches, control, hand casting into drop zone and final pruning cuts. (We envisage the use of pictorial guides, so please sketch out or describe image sequences). Cover problems with saw body and hand positions on saw to overcome.

2.5.3.6 Examples of cutting methods with a chain saw

Please cover removal of branches, large sections, vertical, horizontal timber, control and direction, hand casting in to drop zone and final pruning cuts. (We envisage the use of pictorial guides, so please sketch out or describe image sequences).

2.5.3.7 Utilising pole tools in the tree.

Safe work position, increase reach, better pruning quality, end weight reduction of large sections or changing weight / bias, before large section removal or top removal.

2.5.3.7 Utilising a pull line.

Pros and cons, by hand or with non-return system or with mechanical advantage, highlight communication and control, (We envisage the use of pictorial guides, so please sketch out or describe image sequences).
2.5.4 Reducing / Removing hedges or lines of trees

Safe system of work, with limited anchor points, cutting in confined space, working sections from one anchor point, limitations of MEWP, use of power pole pruner in the hedge/trees.

2.5.4 Final felling of a standing stem

2.5.5 Installing bracing/lightning, systems / lights/ cameras within the tree

BIOSECURITY

Basic run through the precautions to be taken by climbers pre- and post-work.

3.0 Index