GARDEN TOOLS

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Sickle 	For cutting succulent forage for livestock or for harvest grain crops.	• Metallic blade to reduce chances of breakage • Wooden handle to ease grip • Curved blade to increase its cutting length • Light to ease use	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle	• Sharpen blade • Replace handle • Paint • Oil if not in use
Spring balance 	For measuring weight or loads	• Digital display for easy reading off of weights • Compact to ease use • Light to ease movement to other points	• Stuck springs • Spent batteries • Wrong settings	• Replace spent batteries • Regular service
Pick axe 	• to break up a hard surface • uprooting tree stumps before ploughing • Cutting tree roots during land preparation	• The wooden handle reduces injury to user • Fairly short handle maximizes force on impact • Head is metallic to reduce breakage • Pointed end eases penetration into hard surfaces • Head is heavy to maximize impact • Ends are sharp to ease penetration into surfaces	• Broken handle • Blunt blade • Indented blade • Loose handle • Rusting of head	• Replace broken handles • Fix handle tightly • Sharpen blade • Straighten blade • Clean after use • Keep in dry place • Wipe with oily rug before long storage
Hoe/jembe: 	• used for shaping the soil • controlling weeds • Opening up the soil • harvesting root crops like potatoes.	• Metallic blade reduces breakage • Sharp blade eases cutting • Long handle reduces effort required • Smooth handle reduces blistering of user's hands • Fairly light to ease use	• Broken handle • Blunt blade • Indented blade • Loose handle • Bent blade • Rusting of blade	• Replace broken handles • Fix handle tightly • Sharpen blade • Straighten blade • Clean after use • Keep in dry place

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
The rake: 	• For loosening soil • For leveling the ground. • For gathering hay or litter, as well as for any work that may require a harrow.	• Toothed to enable it to gather litter without collecting soil • Long handle eases usage • Smooth handle reduces blistering • Metallic teeth to reduce breakage • Light to reduce effort required	• Bent teeth • Broken handle • Loose handle • Missing teeth	• Do not use for very heavy or very hard objects/ surface • Replace handle • Paint • Oil if not in use • Straighten teeth if bent • Keep in dry place
The wheelbarrow : 	• To move different items across the farm. • Used by masons to determine the sand: cement ratio for mixing	• Wheel rolls over the ground to ease movement • Metallic to reduce breakage • Painted to reduce rusting • Large carrier to enable big load • Fairly long handle reduce effort required • Stands enable loading when stationary	• Broken stands • Broken handles • Worn wheel • Worn bearings • Rusting body • Holes on body	• Grease movable parts • Do not overload • Wash container before storage • Weld broken parts • Replace worn wheels • Repaint
Hosepipe: 	For the transfer of water throughout the garden			
The axe: 	• It is mainly used to shape, split, and cut wood • Cutting down big trees	• A fairly short handle to maximize impact • Smooth handle to reduce blistering of user • Metallic head to reduce chances of breakage • Head is heavy to maximize impact • Head is sharp to ease penetration into surfaces	• Broken handle • Blunt blade • Indented blade • Loose handle • Rusting of head	• Replace broken handles • Fix handle tightly • Sharpen blade

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Watering can: 	For carrying water For distributing water evenly over plants	• Hollow container to hold water • made of light metal or plastic to make it portable • Nozzle has small holes to deliver fine spray of water • Handle enables easy carriage of the can	• Broken container • Clogged nozzles • Broken handles • Missing nozzles	• Clean clogged nozzles • Seal leaking containers • Replace missing nozzles
Shovel: 	• Turning manure in manure pits • Scooping and moving material from one point to another • Loading manure or gravel onto a vehicle • Soil sampling	• The wide blade increase surface area for carrying material • Smooth handle reduces blistering of user • Long handle reduces effort required • Metallic blade reduces chances of breakage • Fairly thin blade eases penetration through material	• Broken handle • Bent blade • Indented blade • Loose handle • Rusting of blade	• Clean after use • Replace handle if broken • Keep in a safe, dry place • Fix the handle firmly • Keep metallic part oiled for long storage
Spade 	• Turning manure in manure pits • Scooping and moving material from one point to another • Loading manure or gravel onto a vehicle • Soil sampling	• The wide blade increase surface area for carrying material • Smooth handle reduces blistering of user • Long handle reduces effort required • Metallic blade reduces chances of breakage • Fairly thin blade eases penetration through material	• Broken handle • Bent blade • Indented blade • Loose handle • Rusting of blade	• Clean after use • Replace handle if broken • Keep in a safe, dry place • Fix the handle firmly • Keep metallic part oiled for long storage

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Panga 	• Cutting down small trees and shrubs • Chopping forage • Shaping wooden handles of hoes and other tools	• Metallic blade to reduce chances of breakage • Wooden handle to ease grip • Sharp blade to ease cutting • Light to ease use • Fairly thin and light to ease use	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Sharpen blade • Replace handle • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place
Garden trowel 	**Transplanting seedlings**	• The spoon—like blade enables carriage of soil with the plant. • Small and portable to ease use • Smooth wooden handle reduces blistering of user's hands • Metallic blade reduces chances of breakage	• Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Sharpen blade • Replace handle • Paint • Oil if not in use • Keep in dry place
Slasher 	**Cutting grass in compounds and gardens**	• Light to ease use • Smooth wooden handle eases gripping • Fairly long to reduce the effort required to use it • Bent at the tip to create a horizontal cutting surface that cuts a wider area	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Sharpen blade • Replace handle • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place
Hand fork 	**Weeding in nursery beds**	• The toothed blade enables it to go through soil without moving it too much. • Small and portable to ease use • Smooth wooden handle reduces blistering of user's hands • Metallic blade reduces chances of breakage	• Bluntness of teeth • Rusting • Loose handle • Teeth getting dents • Breaking of teeth • Missing handle • Bent teeth • Loose handle	• Sharpen teeth • Replace handle • Paint • Oil if not in use • Straighten teeth if bent • Keep in dry place

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Secateurs: 	• Pruning • Preparing grafts by cutting through little branches of young trees or shrubs. • for harvesting vegetables and fruits like grapes or peaches.	• Sharp blades are able to cut through material • Metallic blades to reduce chances of breakage • Fulcrum enables blades to open and close • Plastic handles enable proper grip	• Blunt blades • Rusting • Blade getting dents • Breaking of blade • Missing handle • Bent blade • Sticky/ worn fulcrum	• Sharpen blade • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place • Oil/grease the fulcrum
Sprayer 	For applying fertilizers, herbicides, or pesticides.	• A pressure chamber generates pressure for spraying • Fairly large container to hold a large quantity of chemical • Nozzle with small holes to deliver a fine spray • A lance to enable the user direct the chemical • Trigger helps to control the release of chemical • Calibrated to ease measurement of quantities • Straps ease carrying of specimen onto the back of the user • Made of plastic which is resistant to corrosion by chemicals • ibration, pressure regulation, compound nozzles, and spray tips to maintain accuracy and consistency when spraying herbicides.	• Leaking container • Blocked nozzles • Leaking hose pipe • Worn valves • Misplaced valves • Broken straps • Broken trigger	

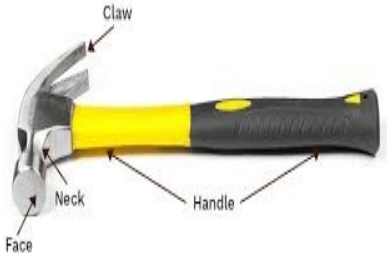
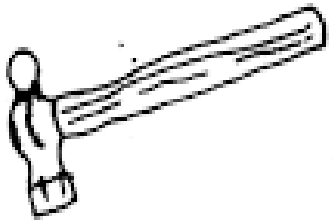
Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Gardening gloves 	Protest the user's hands from injury by the tools or the soil being worked	• Flexible to enable bending of fingers • Made of tough material to resist wear • Pouches enable comfort for the fingers • Light to ease use	Holes in glove	
Soil auger 	For collecting soil during soil sampling	• The pointed tip eases penetration into the soil • Smooth handle reduces blistering of user • Calibrated to measure distance of penetration • Metallic to reduce chances of breakage • Fairly thin to ease penetration through soil	• Blunt tip • Rusting	• Clean after use • Keep in a safe, dry place • Keep metallic part oiled for long storage • paint
Pruning saw 	Cutting off small braches of trees and shrubs	• Metallic blade to reduce chances of breakage • Wooden handle to ease grip • Curved blade to increase its cutting length • Light to ease use	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle	• Sharpen blade • Replace handle • Paint • Oil if not in use
Garden fork 	• Turning manure in manure pits • Scooping and moving material from one point to another • Leveling ground • Collecting litter	• The wide blade increase surface area for carrying material • Smooth handle reduces blistering of user • Long handle reduces effort required • Metallic prongs reduce chances of breakage • Fairly thin prongs ease penetration through material	• Broken handle • Bent prongs • Indented prongs • Loose handle • Rusting	• Clean after use • Replace handle if broken • Keep in a safe, dry place • Fix the handle firmly • Keep metallic part oiled for long storage

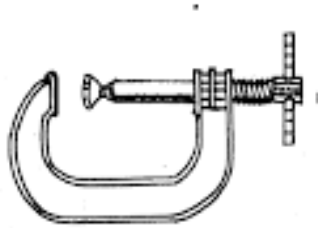
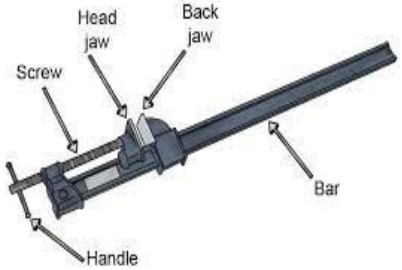
WORKSHOP TOOLS

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Hand drill 	To make holes into hard surfaces without cracking	• Smooth wooden handles reduce blistering of user's hands • Pointed piece pierces material to make holes • Gears/ axles enable rotation of the piece to penetrate surfaces • Piece is metallic and made of strong material to reduce breakage • Piece has treads to ease entry into surfaces	• Blunt drill bit • Rusting • Worn drill bit • Breaking of bit • Missing handles • Bent drill bit • Sticky/ worn gears/ axles	• Sharpen bit • Paint • Oil if not in use • Straighten bit if bent • Keep in dry place • Oil/grease the axles
Hand brace 	To make holes into hard surfaces without cracking	• Smooth wooden handles reduce blistering of user's hands • Pointed piece pierces material to make holes • Gears/ axles enable rotation of the piece to penetrate surfaces • Piece is metallic and made of strong material to reduce breakage • Piece has treads to ease entry into surfaces	• Blunt brace bit • Rusting • Worn brace bit • Breaking of bit • Missing handles • Bent brace bit	• Sharpen bit • Paint/varnish • Oil if not in use • Straighten bit if bent • Keep in dry place • Oil/grease the moving parts
Oil stone 	For sharpening wood workshop tools	• Rough to increase friction for sharpening tools • Portable to ease use • Fairly hard to increase its durability		• Keep enclosed in a casing

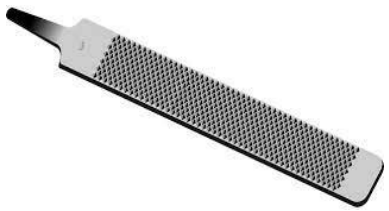
Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Hack saw 	For cutting metals	• Thin blade easily cuts through the metal • Teeth are small and placed close to one another to reduce chances of breakage • Handle enables proper grip while working • Movable lock enables replacement of used blades	• Blunt teeth • Bent blade • Missing teeth/dents on the blade • Loose handle • Rusting of blade	• Regular sharpening • Oiling if not in use • Keep in dry place • Hang in a dry rack • Replace worn blades • Tighten / replace loose handle
Rip saw 	For cutting along the grains of wood	• Thin blade easily cuts through wood • Teeth are sharp to easily cut through wood • Blade is stainless to reduce rusting • Blade is metallic to reduce chances of breakage • Handle enables proper grip while working	• Blunt teeth • Bent blade • Missing teeth/dents on the blade • Loose handle • Teeth poorly set • Rusting of blade	• Regular sharpening • Oiling if not in use • Keep in dry place • Hang in a dry rack • Keep teeth properly set • Tighten / replace loose handle
Bow saw 	Cutting big pieces of wood Cutting down tree branches	• Thin blade easily cuts through the wood • Teeth are small and placed close to one another to reduce chances of breakage • Handle enables proper grip while working	• Blunt teeth • Bent blade • Missing teeth/dents on the blade • Loose handle • Teeth poorly set • Rusting of blade	• Regular sharpening • Oiling if not in use • Keep in dry place • Hang in a dry rack • Keep teeth properly set • Tighten / replace loose handle
Tenon saw 	Cutting tenons (joints) on wood	• Thin blade easily cuts through the wood • Teeth are sharp to reduce chances of breakage • Handle enables proper grip while working • Piece of metal placed over the back of saw to reinforce it.	• Blunt teeth • Bent blade • Missing teeth/dents on the blade • Loose handle • Teeth poorly set • Rusting of blade	• Regular sharpening • Oiling if not in use • Keep in dry place • Hang in a dry rack • Keep teeth properly set • Tighten / replace loose handle

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Marking gauge 	• Marking the point on wood where cutting is to be done • Measures short lengths	• Calibrated to enable measuring of length • Small and light to ease handling • Has a sharp nail/ pin to scratch wood and marl it • Has screw to enable locking of its parts in place • Has smooth surface to easily slide over wood	• Worm marking pin • Missing thumb screw • Faded calibrations	• Replace worn marking pins • Replace missing thumb screw • Keep in dry place
Tape measure 	For measuring lengths of surfaces or materials	• Small and light to ease handling • Flexible to ease use • Calibrated to enable measuring of lengths • Has plastic housing for protection of measuring tape • Has locking mechanism to hold the tape in place during use	• Broken tape • Broken housing • Faulty locking mechanism •	• Do not stack many other tools on top of it •
Smoothing plane 	Making the surface of wood smooth	• Smooth wooden handles reduce blistering of user's hands • Metallic blade to enable scrapping of rough pieces off wood • Flat surface to easily slide over wood • Piece is metallic and made of strong material to reduce breakage • Stainless/ coated with stainless material to reduce rusting	• Blunt blade • Rusting • Missing handles • Worn blade • Loose handles • Blade poorly set	• Clean after use • Oil smoothening edge to avoid rusting • Sharpen the cutting edge • Replace broken handles • Tighten loose handles • Replace worn out blades

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Mallet 	• Driving wood chisels • Driving wooden pegs into materials • For forcing wooden joints together	• Big head to increase the surface area for driving chisels • Weighted head increases force when driving • Short handle enables application of force • Smooth handle reduces friction on user's hands • Wooden or plastic head to reduce damage to wooden chisel handles	• Loose handle • Broken/ cracked head • Broken handle	
Claw hammer 	• Driving nails, chisels and pegs • For extraction of nails • Straightening bent nails	• Plastic/wooden handle to ease gripping • Toothed end enables trapping of nail heads for extraction • Curvature of head acts as pivot during extraction of nails • Weighted head increases force when driving • Short handle enables application of force • Smooth handle reduces friction on user's hands • Metallic head to reduce damage to hammer on impact	• Loose handle • Broken/ cracked head • Broken handle • Broken claws	• Polish panes on fine glass paper to avoid them slipping on wood • Replace damaged heads • Replace damaged handles • Ensure head tightly fitted • Do not use on very hard surfaces
Ball pane hammer 	• Driving nails, chisels and pegs on flat surfaces • For driving nails into curved surfaces • Straightening bent nails	• Plastic/wooden handle to ease gripping • Flat heat enables driving chisels/ nails into flat surfaces • Weighted head increases force when driving • Short handle enables application of force • Smooth handle reduces friction on user's hands • Rounded end enables driving of nails into curved surfaces	• Loose handle • Broken/ cracked head • Broken handle	• Polish panes on fine glass paper to avoid them slipping on wood • Ensure head tightly fitted • Do not use on very hard surfaces

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Pliers 	• Tightening nuts and bolts • Gripping objects during work • Cutting wires	• Sharp edge enables cutting through wires • Metallic jaws reduce chances of breakage • Fulcrum enables jaws to open and close • Plastic handles enable proper grip • Grooves on the jaws enable gripping of objects	• Blunt blades • Rusting • Blade getting dents • Missing handle • Jaws with worn grooves • Sticky/ worn fulcrum	• Oil if not in use • Keep in dry place • Oil/grease the fulcrum • Use for the right purpose
G– clamp 	Holding material in place while cutting	• Screw for adjusting the jaws • Jaw to hold the work in place • Fairly small to make it portable • Metallic to give it durability and rigidity • Painted to reduce rusting • Rugged to take the pressure of the job being held	• Worn treads on screw mechanism • Rusting	• Oil/ grease the screw • Paint • Oil if not in use • Keep in a dry place
Sash clamp 	Holding materials together for joining	• Straight bar to keep the joints straight • Screw for adjusting the jaws • Jaws to hold the work in place • Holes on the bar to lock the jaws in place • Metallic to give it durability and rigidity • Painted to reduce rusting • Rugged to take the pressure of the job being held	• Worn treads on screw mechanism • Rusting • Bent bar	• Oil/ grease the screw • Straighten bent bar • Paint • Oil if not in use • Keep in a dry place

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Chisel 	For blowing holes into timber	• Tough to withstand the blows from the mallet • Made of metal to be durable • Sharp blade enables it to penetrate the material it is blown into • Plastic/wooden handle enables the user to have a firm grip • Fairly short to reduce chances of bending on impact	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Sharpen blade • Replace handle • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place
Open ended & Ring spanner  	For tightening and loosening nuts and bolts	• Angular jaws enable the spanner to grip the nuts/ bolts • Metallic to give it strength • Stainless to reduce rusting • Fairly thin and light to make it portable •	• Worn grooves • Breakage of parts	• Use the right size of spanner for particular job • Keep in dry tool box • Use for correct job
Adjustable spanner 	Loosening and tightening nuts and bolts	• Adjustable jaw enables it to adjust to wider range of nut size, • Bigger than most spanners to enable them handle harder jobs	• Worn treads on adjustment mechanism • Rusting • Stuck adjustment mechanism	• Oil/ grease the screw • Paint • Oil if not in use • Keep in a dry place
				

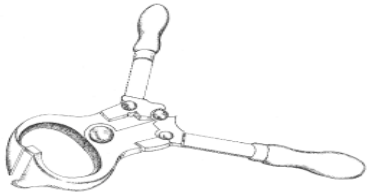
Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Flat screw driver & Star screw driver 	For loosening and tightening screws	• Long to reduce effort required • Head shaped to fit in head of screw • Handle is grooved to increase grip • Light to make it portable	• Bent stalks • Dented tips • Broken handles • Blunt /widened tips	• Sharpen flat screw drivers • Straighten if bent • Replace broken handles
Triangular file 	For sharpening teeth of saws	• Small size enables it to fit between the teeth of saws • Triangular shape enables it to fit between adjacent teeth • Light and portable to ease use • Rough surface increases friction to enable file to sharpen	• Missing handle • Clogged teeth • Broken files • Worn teeth	• Keep the file dry • Wrap it in paper before putting in tool box • Clean it with a wire brush • Keep away from oil to avoid clogging teeth
Bastard file 	For reducing the thickness of metals/ sharpening metals	• Light and portable to ease use • Rough surface increases friction to enable file to sharpen • Metallic to reduce wear to it as it works • Grooves are close to one another to reduce breakage	• Missing handle • Clogged teeth • Broken files • Worn teeth	• Keep the file dry • Wrap it in paper before putting in tool box • Clean it with a wire brush • Keep away from oil to avoid clogging teeth
Rasp file 	For smoothening wood	• Light and portable to ease use • Rough surface increases friction to enable file to sharpen • Metallic to reduce wear to it as it works • Grooves are big and far from another to increase wear to the wood being worked	• Missing handle • Clogged teeth • Broken files • Worn teeth	• Keep the file dry • Wrap it in paper before putting in tool box • Clean it with a wire brush • Keep away from oil to avoid clogging teeth

CONSTRUCTION TOOLS

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Wooden float 	For smoothening walls and floors	• Small and light to ease use • Flat/ smooth bottom enables smoothening surfaces • Handle eases gripping and use	• Cracked base • Broken handle • Broken base • Dirty base • Loose handle	• Clean after use • Tighten loose handle • Replace handle • Mend broken base
Mortar pan 	Carrying or holding mortar	• Fairly light to ease use • Large hollow enables carrying of large quantities of mortar • Handles ease gripping and use	• Rusting • Holes in pan • Mortar sticking to pan	• Clean after use • Seal off holes
Scrapper 	• Removing material from surfaces • Cutting material	• Small and light to ease use • Wide blade enables scrapping large areas of surfaces • Handle eases gripping and use • Sharp blade eases penetration into surface to be scrapped	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Sharpen blade • Replace handle • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place
Mortar pan 	For applying mortar onto buildings	• Small and light to ease use • Flat/ smooth bottom enables flattening of mortar onto surfaces • Handle eases gripping and use • Z shape enables it to cover wider area	• Bluntness • Rusting • Loose handle • Blade getting dents • Breaking of blade • Missing handle • Bent blade	• Replace handle • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place • Clean after use
Rammer 	For compacting materials during construction	• Long handle reduces effort required • Flat/ smooth bottom enables straightening of surfaces • Handle eases gripping and use • Broad base increases surface area for ramming • Heavy base increases force applied to the ground	• Loose handle • Broken handle • Broken base • Dirt/ materials stuck to the base	• Replace broken handle • Tighten handles • Clean after/ during use

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Spirit level 	Testing flatness of surfaces	• Air bubble in liquid indicates tilt • Flat surface enables it to sit properly on the surface it is testing • Light to ease use • Transparent fluid filled capsules enable observation of bubbles • Capsules have two marks between which bubble should be if flat	• Cracked capsules • Dirty surface	Keep it clean
Plumb bob 	Testing straightness of walls	• Weighted to enable it hang straight on string • String enables bob to hang against walls • Piece/ member helps to create perpendicular line for the bob from the wall	• Cut string • Missing member	Replace string Replace lost member
Builders' square 	• Testing right angles • Measuring short distances • Making straight lines	• Light to ease use • Straight edges to make straight lines • Calibrated to measure lengths • Right angled joint enables it to test right angles • Metallic for durability	• Rusting • Bent parts • Dents on edges	• Clean after use • Use for the right purpose • Oil if not in use • Keep in dry place
Try square 	• Testing right angles • Measuring short distances • Making straight lines	• Light to ease use • Straight edges to make straight lines • Calibrated to measure lengths • Right angled joint enables it to test right angles • Metallic for durability	• Rusting • Bent parts • Dents on edges	• Clean after use • Use for the right purpose • Oil if not in use • Keep in dry place

LIVESTOCK MANAGEMENT TOOLS

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Milking bucket 	• Milking • Temporary storage of milk • Feeding calves	• Made of stainless steel or aluminium to make it resistant to corrosion • Large hollow container to carry a lot of milk • Handle to ease carrying • Smooth interior to ease cleaning	• Missing handles • Leakages •	• Wash with soap and rinse with water • Scrub with hot water and detergent to remove fats • Dry under the sun before storage • Soak equipment in detergent solution
Milk can 	• Temporary storage of milk • Transportation of milk	• Large hollow to increase its capacity • Handle to ease lifting • Cover to reduce spillage and contamination of milk • Aluminum or coated with tin to reduce reaction with milk • Opaque to reduce oxidation by light • Smooth to ease cleaning	• Missing handles • Leakages • Missing cap • Loose cap	• Wash with soap and rinse with water • Scrub with hot water and detergent to remove fats • Dry under the sun before storage • Soak equipment in detergent solution
Hoof trimmer 	**Trimming the hooves of animals**	• Fulcrum enables prongs to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Sharp blades enable cutting of unwanted hoof parts • Metallic to get adequate strength	• Blunt blades • Rusting • Blade getting dents • Breaking of blade • Missing handle • Bent blade • Sticky/ worn fulcrum	• Sharpen blade • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place • Oil/grease the fulcrum
Burdizzo 	**Castration of animals**	• Blunt pincers apply a lot of pressure to break sperm ducts • Fulcrum enables jaws to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Metallic to get adequate strength	• Sticky/ worn fulcrum	• Clean after use • Oil if not in use • Keep in dry place • Oil/grease the fulcrum

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Poultry drinker 	Holding and providing water for poultry	• Plastic to ease cleaning • Large capacity to hold a lot of water • Large base to give it stability • Limited drinking space to prevent birds from soiling water • Locks enable assembling and dismantling	• Faulty locks • Leakage	• Seal off leakages • Clean every day
Ear tag applicator 	Applying tags onto the ears of animals	• Fulcrum enables prongs to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Small and portable to ease use • Has points on which to fit the male and female tags	• Broken handles • Stuck fulcrum	• Weld broken handles • Oil fulcrum • Store in a dry place • Use for correct purpose
Tattooing machine 	Etching designs into the ears of animals	• Fulcrum enables prongs to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Small and portable to ease use • Designs on jaws enables imprinting marks on ears of animals	• Broken handles • Stuck fulcrum	• Weld broken handles • Oil fulcrum • Store in a dry place • Use for correct purpose
Rope 	Restraining animals	• Twisted to increase strength • Long to give animal some leeway • Soft texture reduces harm to animal	Breakage/ being cut	
Smoker 	Burning materials to produce smoke for subduing bees	• Blower fans the materials to burn • Pout directs smoke • Guard ring reduces danger to user • Hollow interior hold material • Portable for ease of use • Hook for hanging during storage	• Faulty blower • Broken pout •	• Seal holes on blower • Weld all cracked points

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Rubber ring elastrator 	Used to stretch a rubber ring for insertion onto the neck of the scrotum/ base of horn	• Fulcrum enables prongs to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Small and portable to ease use	• Broken handles • Stuck fulcrum • Broken prongs	• Paint • Oil if not in use • Weld broken handles • Keep in dry place • Oil/grease the fulcrum • Replace broken prongs
Chaff cutter 	Cutting down forage into smaller pieces for livestock	• Stands give it a suitable height for working • Circular handle drives the blades while cutting • Sharp blades help to cut fodder • Holder for placing fodder for cutting • Painted to reduce rusting	• Blunt blades • Stuck bearings • Worn bearings • Broken stands • Rusting	• Paint • Oil if not in use • Weld broken stands • Keep in cool/dry place • Oil/grease the bearings • Replace worn bearings
Milk strainer 	Removing solid impurities from milk	• Handle reduces contamination of milk by handler • Small mesh size enables trapping of impurities • Stainless to reduce rusting • Fairly large in size to enable quick sieving of milk	• Holes in the mesh • Broken handles • Clogged mesh	• Wash immediately after use • Unclog mesh • Seal off big holes
Poultry feeder 	Holding food while feeding birds	• Plastic to ease cleaning • Large capacity to hold a lot of food • Large base to give it stability • Limited feeding space to prevent birds from spilling of food • Locks enable assembling and dismantling	• Faulty locks • Cracked broken surface	• Seal off breakages • Clean every day

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Clippers 	Cutting off very big horns	• Sharp blades enable cutting of horns • Long handles reduce effort used • Wooden grips ease holding when using • Pivot enables opening and closing of blades • Stainless to reduce rusting	• Blunt blades • Missing grips • Stuck pivot •	• Sharpen blade • Paint • Oil if not in use • Replace handles if lost • Keep in dry place • Oil/grease the fulcrum • Clean after use
Thermometer 	Measuring the temperature of animals	• Calibrated to enable measuring of temperature • Transparent to enable taking of readings • Metallic point enables conduction of heat	• Breakage • Spent batteries (if digital) • Dirt that blocks out the scale	• Clean and sterilize after use • Keep enclosed in its casing
Bee brush 	For gently brushing bees off honey supers	• Soft bristles enable gentle handling of bees • Wooden handle eases gripping • Portable to ease use • Hole on the handle eases hanging during storage • Handle is varnished or painted to increase its durability	• Broken bristles • Cracked/broken handles • Dirty/ clogged bristles •	• Clean after use • Hang in dry place to store
Honey extractor 	Removing honey from the honey supers	• Stainless to prevent contamination of honey/ reduce rusting • Motor enables rotation of the honey combs to extract honey • Large enough to hold a large volume of honey • Stands give it a suitable height for working	• Broken motor • Broken electrical wires • Rusting • Leakages •	• Ensure correct wiring. If electrical • Service motor regularly • Clean immediately after use

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Drenching gun 	Making animals drink oral medicine	• Calibrated to measure dosage • Long nozzle delivers medicine deep into animal's mouth • Transparent container enables to see volume of drug • Trigger mechanism enables forcing medicine into animal • Plastic to make it portable and easier to clean	• Blocked nozzle • Worn piston • Cracked container • Broken trigger	• Clean after use • Unblock nozzles • Seal off leakages • Replace worn piston
Shears 	Removing wool from sheep	• Fulcrum enables prongs to open and close • Stainless steel reduces rusting • Smooth handles enable a proper grip • Small and portable to ease use	• Blunt blades • Rusting • Blade getting dents • Breaking of blade • Breaking of handle • Bent blade	• Sharpen blade • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place
Uncapping fork 	Removing the propolis seal from honey combs	• Smooth handles enable a proper grip • Small and portable to ease use	• Bent prongs • Blunt prongs	• Cleaning after use • Straightening bent prongs • Sharpen prongs
Needle and Syringe 	• Introducing drugs into muscles or vein of animals • Taking blood samples from animals	• Calibrated to enable measuring of dosage • Transparent to enable seeing of the volume inside • Needle is metallic to reduce bending/ breakage • Sharp needle to penetrate muscles/ veins easily • Plunger to suck in and push out drugs/blood	• Bent needles • Cracked/ leaking syringe • Blocked needle	• Dismantle immediately after use • Clean and sterilize after use • Change needles • Keep scale marks clean • Store syringe and needles separately
Hive tool 	• Prying frames out of hives • Scrapping propolis off hive parts	• Smooth handles enable a proper grip • Small and portable to ease use • Stainless to reduce rusting • Sharp end enables scrapping • Hole enables hanging	• Breaking parts • Broken handles	• Replace handles • Weld broken parts

Tool	Uses	Design features that make it suitable	Common faults	Maintenance
Strip cup 	observing milk for signs of mastitis	• Black inner surface to increase contrast • Light to ease use • Plastic to ease cleaning • Hole on inner black surface to enable milk flow to bottom of cup • Handle eases gripping/ holding during use	• Dirty cup • Broken handles • Breaking/cracking of cup • Loss of black layer	• Clean after use • Replace black lining
Ear tags 	Identification of animals	• Male is pointed to penetrate ear of animals • Brightly colored for easy spotting • Light to reduce load on animal • Plastic to avoid reacting with body of animal • Broad female enables writing of names		
Nose ring 	For leading animals	• Pointed and sharp blade to pierce septum of animals • Smooth ring to reduce injury to animals • Fulcrum to enable opening it and closing • Pin to lock it in so that it does not open • Stainless to reduce rusting	• Stuck joint • Lost lock	• Sharpen blade • Paint • Oil if not in use • Straighten blade if bent • Keep in dry place • Oil/grease the fulcrum
Branding iron 	Branding animals	• Long handle protect user from fire • Handle is insulated to protect user from heat • The head has a design to be able mark the animal • Metallic to conduct heat	• Missing handle	• Keep in dry place
Dehorning iron 	Dehorning animals	• Long handle protect user from fire • Handle is insulated to protect user from heat • The head has a hollow to be able to take the horn bud and some skin • Metallic to conduct heat	• Missing handle	Keep in dry place

Factors considered when choosing a farm tool to buy

Ease of use: The tool should be easy to use by the farmer ..

- Versatility: It should be able to perform a wide range of jobs.
- Cost: Famers should choose cheap but efficient tools.
- Power requirements: Tools should use power available on the farm
- Size of the farm: big farms require bigger tools
- Availability of spares and after sales services: the more available the after sales services, the better the tool.
- Operating costs: The tool should be cheap to use.
- Efficiency at work: the tool should be able to do the job at hand efficiently
- Durability: The more durable the tool, the better for the farmer.
- Job to be done: farmers buy the tools to do the jobs they have at hand.
- The guarantee given by the seller: the longer the better
- Ease of maintenance: The tool should be relatively easy to maintain.

General rules for proper maintenance of tools

- Always use tools correctly/ for the job they are designed to do
- Wipe tools clean after use
- Oil tools to reduce rusting
- Keep tools off the ground
- Keep tools in a shade to reduce depreciation by heat
- Store tools in an appropriate place
- Replace or repair worn out parts of tools
- Movable parts should be tightened

Safety rules in a workshop

- Store tools in boxes, racks or shelves
- Tools should be carried with the pointed or sharp part covered
- Do not run or move fast inside the workshop to avoid distracting others
- Tools and materials being worked should be held tightly
- As much as possible, when using cutting tools, both hands must be placed behind the cutting edge
- Avoid piling tools on thee bench as they could roll off and cause injury
- Do not wear loose or torn clothing in the workshop
- Children or unskilled persons should not handle or use equipment
- Only use tools that are in good working order.