

CPC**COOPERATIVE PATENT CLASSIFICATION****A01G****HORTICULTURE; CULTIVATION OF VEGETABLES, FLOWERS, RICE, FRUIT, VINES, HOPS OR SEAWEED; FORESTRY;**

WATERING (picking of fruits, vegetables, hops, or the like [A01D 46/00](#); plant reproduction by tissue culture techniques [A01H 4/00](#); devices for topping or skinning onions or flower bulbs [A23N 15/08](#); propagating unicellular algae [C12N 1/12](#); plant cell culture [C12N 5/00](#))

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[A01G 33/02](#) covered by [A01G 33/00](#)

A01G 1/00

Horticulture; Cultivation of vegetables (labels or name-plates [G09F 3/00](#), [G09F 7/00](#))

- A01G 1/001 . {Horticultural methods}
- A01G 1/002 . {Growing turf}
- A01G 1/004 . . {Pre-cultivated sod; Machines for laying it down}
- A01G 1/005 . . {Planted mats, e.g. for covering roofs}
- A01G 1/007 . . {Flat containers, e.g. for covering roofs}
- A01G 2001/008 . {Growing plants or turf in soil-like layered substrates using a foil}
- A01G 1/02 . Cultivation of asparagus
- A01G 1/04 . Cultivation of mushrooms (composts or fertilisers for cultivating mushrooms [C05](#))
- A01G 1/042 . . {Growing rooms with treatment apparatus; Cultivation racks or trays}
- A01G 1/044 . . {Apparatus for treating mushroom compost}
- A01G 1/046 . . {Cultivation bags or bottles}
- A01G 1/048 . . {Mycorrhiza}
- A01G 1/06 . Grafting (grafting-wax [A01N 3/04](#))
- A01G 2001/065 . . {Removing buds}
- A01G 1/08 . Edging for beds, lawns, or the like, e.g. using tiles
- A01G 1/12 . Tools for cultivating turf; Sweeping apparatus for lawns; Garden rollers (machines for treating meadows or lawns [A01B 45/00](#); lawn-mowers [A01D 34/00](#))
- A01G 1/125 . . {Machines for sweeping lawns and for collecting or disintegrating lawn debris}

A01G 3/00

Cutting implements specially adapted for horticultural purposes; Delimbing standing trees (felling trees [A01G 23/08](#); hand-held cutting tools suitable for other use [B26B](#))

- A01G 3/002 . {for comminuting plant waste (comminuting by cutting implements in general [B02C 18/00](#))}
- A01G 2003/005 . {Removing buds}

- A01G 2003/007 . {Using spray}
- A01G 3/02 . Secateurs; Flower or fruit shears
- A01G 3/021 . . {characterized by the arrangement of pivots}
- A01G 2003/023 . . {with means for grasping the cut object}
- A01G 3/025 . . having elongated or extended handles
- A01G 3/0251 . . . {Loppers, i.e. branch cutters with two handles (hedge shears [A01G 3/0475](#))}
- A01G 3/0255 . . . {Tree pruners, i.e. pruning shears carried at the end of a pole}
- A01G 3/033 . . having motor-driven blades
- A01G 3/0335 . . . {having elongated or extended handles}
- A01G 3/037 . . . the driving means being an electric motor
- A01G 3/04 . Apparatus for trimming hedges, e.g. hedge shears
- A01G 3/0408 . . {specially adapted for trellis work, e.g. machines for pruning vine or the like (preliminary pruning vines [A01G 17/023](#); defoliating machines [A01G 17/026](#))}
- A01G 3/0417 . . {Guiding frames for trimming hedges}
- A01G 3/0426 . . {Machines for pruning vegetation on embankments and road-sides}
- A01G 3/0435 . . {Machines specially adapted for shaping plants, e.g. topiaries}
- A01G 2003/0443 . . {with height-adjustable platforms}
- A01G 2003/0452 . . {with platforms for persons}
- A01G 2003/0461 . . {with reciprocating knives}
- A01G 3/047 . . portable
- A01G 3/0475 . . . {Hedge shears}
- A01G 3/053 . . . motor-driven
- A01G 3/0535 {with rotatable knives}
- A01G 3/06 . Hand-held edge trimmers or shears for lawns {(with a flexible rotating cutter [A01D 34/416](#))}
- A01G 3/062 . . {Motor-driven edge trimmers}
- A01G 3/065 . . {Hand operated shears for lawns}
- A01G 3/067 . . {Motor-driven shears for lawns}
- A01G 3/08 . Other tools for pruning, branching or delimbing standing trees
- A01G 3/081 . . {Manual cutting tools not otherwise provided for, e.g. pruning hooks}
- A01G 3/083 . . {Manual pruning saws (saws in general [B27B](#))}
- A01G 3/085 . . {Motor-driven saws for pruning or branching (saws in general [B27B](#))}
- A01G 3/086 . . . {Chain saws (chain saws in general [B27B 17/00](#))}
- A01G 3/088 . . . {Circular saws (circular saws in general [B27B 5/00](#))}
- A01G 5/00** **Floral handling**
- A01G 2005/005 . {Thorn removers}
- A01G 5/02 . Apparatus for binding bouquets or wreaths
- A01G 5/04 . Mountings for wreaths, or the like; Racks or holders for flowers

- A01G 5/06 . Devices for preserving flowers (chemical substances [A01N 3/02](#); flower vases [A47G 7/06](#))

A01G 7/00**Botany in general** (cultivation without soil [A01G 31/00](#))

- A01G 7/02 . Treatment of plants with carbon dioxide (greenhouses therefor [A01G 9/18](#))
- A01G 7/04 . Electric or magnetic treatment of plants for promoting growth
 - A01G 7/045 . . {with electric lighting}
- A01G 7/06 . Treatment of growing trees or plants, e.g. for preventing decay of wood, for tingeing flowers or wood, for prolonging the life of plants

A01G 9/00**Cultivation of flowers, vegetables or rice in receptacles, forcing-frames, or greenhouses** (cultivation without soil [A01G 31/00](#); {turbing of roofs [E04D 11/002](#)})

- A01G 2009/003 . {Plant pots consisting of two halves, allowing easy removal of the plant}
- A01G 9/006 . {Labels or label holders for flower pots}
- A01G 9/02 . Receptacles, e.g. flower-pots or boxes (hanging flower baskets, holders or containers for flower-pots [A47G 7/00](#)); Glasses for cultivating flowers
 - A01G 9/021 . . {Pots formed in one piece; Materials used therefor}
 - A01G 9/022 . . {Pots for vertical horticulture}
 - A01G 9/023 . . . {Multi-tiered planters}
 - A01G 9/024 . . . {Hanging flower pots and baskets}
 - A01G 9/025 . . . {Containers and elements for greening walls (for covering roofs [A01G 1/007](#))}
 - A01G 9/026 . . {Foldable pots}
 - A01G 9/027 . . {Pots connected in horizontal rows}
 - A01G 9/028 . . {Multi-compartmented pots}
- A01G 9/04 . Flower-pot saucers
 - A01G 9/042 . . {Combinations of a saucer and a flower pot attached together}
- A01G 9/045 . . {Trays for receiving multiple pots}
- A01G 9/047 . . {Channels or gutters, e.g. for hydroponics}
- A01G 9/06 . Devices for cleaning flower-pots
- A01G 9/08 . Devices for filling-up flower-pots {or pots for seedlings}; Devices for setting plants {or seeds} in pots
 - A01G 9/081 . . {Devices for filling-up pots}
 - A01G 9/083 . . {Devices for setting plants in pots}
 - A01G 9/085 . . {Devices for setting seeds in pots}
 - A01G 9/086 . . {Devices for repotting}
 - A01G 9/088 . . {Handling or transferring pots}
- A01G 9/10 . Pots {(or other receptacles)} for seedlings, {saplings, cuttings or other young plants (foldable pots)}; Soil {(or like)} blocks for seedlings; {Plant substrate bodies}; Means for forming soil-blocks
 - A01G 9/1006 . . {Tools, machines and methods for forming soil blocks or compressed pots, e.g. from peat}
 - A01G 9/1013 . . {soil blocks or compressed pots}

- A01G 9/102 . . {Planting receptacles specially adapted for remaining in the soil after planting}
- A01G 9/1026 . . {Seed or shoot receptacles}
- A01G 9/1033 . . {Sterile receptacles, e.g. for tissue culture}
- A01G 9/104 . . {Units comprising two or more connected receptacles}
- A01G 2009/1046 . . . {containing mineral wool}
- A01G 2009/1053 . . . {containing superabsorbents}
- A01G 2009/106 . . . {containing wood}
- A01G 9/1066 . . {Grids for supporting several receptacles}
- A01G 9/1073 . . {Receptacles specially adapted for air layering}
- A01G 9/108 . . {Handling or transporting of soil blocks or seedlings}
- A01G 9/1086 . . {Composition of plant substrate bodies (plant growth regulators [A01N](#); fertilizers [C05](#); soil conditioning or soil stabilizing materials [C09K 17/00](#))}
- A01G 2009/1093 . . {for dwarf plants}
- A01G 9/12 . . Supports for plants; Trellis for strawberries or the like ({trellis-work for vines [A01G 17/06](#)}; stays for trees, props for vines [A01G 17/14](#))
- A01G 9/122 . . {Stakes}
- A01G 9/124 . . . {Means for holding stakes upright in, on, or beside pots}
- A01G 9/126 . . {Wirespool supports}
- A01G 9/128 . . {Fixing of plants to supports, e.g. by means of clips}
- A01G 9/14 . . Greenhouses (cloches [A01G 13/04](#); {glazing bars, glazing clips therefor [E04D 3/06](#)})
- A01G 9/1407 . . {of flexible synthetic material}
- A01G 9/1415 . . . {with double or multiple walls}
- A01G 9/1423 . . {Greenhouse bench structures}
- A01G 9/143 . . {Equipment for handling produce in greenhouses}
- A01G 9/1438 . . {Covering materials therefor; Materials for protective coverings used for soil and plants, e.g. films, canopies, tunnels or cloches}
- A01G 2009/1446 . . . {with perforations}
- A01G 2009/1453 . . . {containing textile products}
- A01G 2009/1461 . . . {containing woven structures}
- A01G 9/1469 . . {with double or multiple walls}
- A01G 9/1476 . . {Greenhouse gutters (gutters in general [E04D 13/064](#))}
- A01G 2009/1484 . . {Glazing apparatus}
- A01G 2009/1492 . . {Cleaning apparatus}
- A01G 9/16 . . Dismountable or portable greenhouses; {Greenhouses with sliding roofs}
- A01G 9/18 . . Greenhouses for treating plants with carbon dioxide or the like
- A01G 9/20 . . Forcing-frames; Lights
- A01G 9/22 . . Shades or blinds for greenhouses, or the like ({canopies [A01G 13/0206](#)})
- A01G 9/222 . . {Lamellar or like blinds (in general [E06B 9/26](#))}
- A01G 9/225 . . {Inflatable structures}

- A01G 9/227 . . {rolled up during non-use (in general [E06B 9/08](#))}
- A01G 9/24 . Devices {or systems} for heating, ventilating, regulating temperature, or watering, in greenhouses, forcing-frames, or the like
- A01G 9/241 . . {Arrangement of opening or closing systems for windows and ventilation panels}
- A01G 9/242 . . . {for greenhouses with flexible coverings}
- A01G 9/243 . . {Collecting solar energy (in general [F24J](#))}
- A01G 9/245 . . {Conduits for heating by means of liquids, e.g. used as frame members or for soil heating}
- A01G 9/246 . . {Air-conditioning systems}
- A01G 9/247 . . {Watering arrangements}
- A01G 2009/248 . . {with distillation of water}
- A01G 9/26 . . Electric devices

A01G 11/00 **Sterilising soil by steam** (soil-conditioning or soil-stabilising materials [C09K 17/00](#))

A01G 13/00 **Protecting plants** (apparatus for the destruction of vermin or noxious animals [A01M](#); use of chemical materials therefor, composition of protective materials, e.g. grafting wax, [A01N](#); {coverings around trees forming part of a road [E01C 9/005](#)})

- A01G 2013/002 . {Wind breakers}
- A01G 2013/004 . {Liquid mulch}
- A01G 2013/006 . {with perforations}
- A01G 2013/008 . {using straw}
- A01G 13/02 . Protective coverings for plants; {Coverings for the ground;} Devices for laying-out {or removing} coverings {(covering materials [A01G 9/1438](#))}
- A01G 13/0206 . . {Canopies, i.e. devices providing a roof above the plants}
- A01G 13/0212 . . . {for individual plants, e.g. for plants in pots}
- A01G 2013/0218 . . {for removing}
- A01G 13/0225 . . {Wind breakers, i.e. devices providing lateral protection of the plants}
- A01G 13/0231 . . {Tunnels, i.e. protective full coverings for rows of plants (dismountable or portable greenhouses [A01G 9/16](#))}
- A01G 13/0237 . . {Devices for protecting a specific part of a plant, e.g. roots, trunk or fruits}
- A01G 13/0243 . . {Protective shelters for young plants, e.g. tubular sleeves}
- A01G 13/025 . . {Devices for laying-out or removing plant coverings (for ground coverings [A01G 13/0287](#))}
- A01G 13/0256 . . {Ground coverings}
- A01G 13/0262 . . . {Mulches, i.e. covering material not-pre-formed in mats or sheets ([A01G 13/0281](#) takes precedence; composition of mulches [C09K 17/52](#))}
- A01G 13/0268 . . . {Mats or sheets, e.g. nets or fabrics ([A01G 13/0281](#) takes precedence)}
- A01G 13/0275 {Films}
- A01G 13/0281 . . . {Protective ground coverings for individual plants, e.g. for plants in pots (coverings around trees forming part of a road [E01C 9/005](#))}
- A01G 13/0287 . . . {Devices for laying-out or removing ground coverings}

A01G 13/0293	<ul style="list-style-type: none"> . . . {Anchoring means for ground coverings}
A01G 13/04	<ul style="list-style-type: none"> . . Cloches {i.e. protective full coverings for individual plants (dismountable or portable greenhouses A01G 9/16; individual canopies A01G 13/0212)}
A01G 13/043	<ul style="list-style-type: none"> . . . {with flexible coverings}
A01G 2013/046	<ul style="list-style-type: none"> . . . {foldable}
A01G 13/06	<ul style="list-style-type: none"> . Devices for generating heat, smoke, or fog in gardens, orchards, or forests, e.g. to prevent damage by frost ({bee-smokers A01K 55/00; fumigators for destroying insects A01M 13/006; for destroying rats A01M 17/004; chemical aspects of generating smoke or mist C06D 3/00; heating devices in general, see the appropriate classes, e.g. F24)}
A01G 13/065	<ul style="list-style-type: none"> . . {Frost protection by generating fog or by spraying}
A01G 13/08	<ul style="list-style-type: none"> . Mechanical apparatus for circulating the air
A01G 13/10	<ul style="list-style-type: none"> . Devices for affording protection against animals, birds, or other pests ({protective shelters for young plants A01G 13/0243;} traps A01M 23/00 {; scaring or repelling devices A01M 29/00}; pesticides A01N)}
A01G 13/105	<ul style="list-style-type: none"> . . {Protective devices against slugs, snails, crawling insects or other climbing animals}
A01G 15/00	Devices or methods for influencing weather conditions (dispersing fog in general E01H 13/00)
A01G 16/00	Cultivation of rice (A01G 9/00 takes precedence)
A01G 17/00	Cultivation of hops, vines, fruit trees, or like trees
A01G 17/005	<ul style="list-style-type: none"> . {Cultivation methods}
A01G 17/02	<ul style="list-style-type: none"> . Cultivation of hops or vines
A01G 17/023	<ul style="list-style-type: none"> . . {Machines for priming and/or preliminary pruning of vines, i.e. removing shoots and/or buds (trimming apparatus for trellis work A01G 3/0408)}
A01G 17/026	<ul style="list-style-type: none"> . . {Machines for removing leaves of vines}
A01G 17/04	<ul style="list-style-type: none"> . Supports for hops, vines, or trees
A01G 17/06	<ul style="list-style-type: none"> . . Trellis-work
A01G 2017/065	<ul style="list-style-type: none"> . . . {Trellis-work for supporting vines having wire-tensioning devices}
A01G 17/08	<ul style="list-style-type: none"> . . . Tools for attaching hops, vines, or boughs to trellis-work; Tying devices
A01G 17/085	<ul style="list-style-type: none"> {Tying instruments; Espalier machines}
A01G 17/10	<ul style="list-style-type: none"> . . Holders for boughs or branches
A01G 17/12	<ul style="list-style-type: none"> . . Tree-bands
A01G 17/14	<ul style="list-style-type: none"> . . Props; Stays
A01G 17/16	<ul style="list-style-type: none"> . . . Devices for driving-in or pulling-out props
A01G 17/18	<ul style="list-style-type: none"> . Means for filling-up wounds in trees
A01G 21/00	Devices for hanging-up harvested fruit
A01G 23/00	Forestry
A01G 23/003	<ul style="list-style-type: none"> . {Collecting felled trees}
A01G 23/006	<ul style="list-style-type: none"> . . {Log skidders}

- A01G 23/02
 - Transplanting, uprooting, felling or delimbing trees ([delimbing standing trees A01G 3/00](#))
- NOTE**
 - Tree feeding devices are covered by group [B27B 25/00](#)
- A01G 23/04
 - • Transplanting trees; Devices for grasping the root ball, e.g. stump forceps; Wrappings or packages for transporting trees
- A01G 23/043
 - • • {Transplanting devices for grasping, undercutting or transporting the root ball ([A01G 23/046](#) takes precedence)}
- A01G 23/046
 - • • {Transplanting devices using elements to be driven into the ground for making a container around the root ball}
- A01G 23/06
 - • Uprooting or pulling up trees; Extracting or eliminating stumps
- A01G 23/062
 - • • {Pulling up trees or stumps}
- A01G 23/065
 - • • • {in a substantially vertical plane}
- A01G 23/067
 - • • • {by comminuting the tree stumps}
- A01G 23/08
 - • Felling trees ([axes B26B 23/00](#); [saws, sawing machines B27B](#))
- A01G 23/081
 - • • Feller-bunchers, i.e. with bunching by felling head ([A01G 23/083](#) takes precedence)
- A01G 23/083
 - • • Feller-delimbers
- A01G 23/085
 - • • • having the shearing head mounted on a first boom and the delimbing head mounted on a second boom
- A01G 23/087
 - • • Shearing apparatus or the like specially adapted for felling trees ([A01G 23/081](#), [A01G 23/083](#), [A01G 23/093](#) take precedence)
- A01G 23/089
 - • • • having two or more shears
- A01G 23/09
 - • • • of the percussion type
- A01G 23/091
 - • • Sawing apparatus specially adapted for felling trees ([A01G 23/081](#), [A01G 23/083](#), [A01G 23/093](#) take precedence)
- A01G 23/093
 - • • Combinations of shearing, sawing or milling apparatus specially adapted for felling trees
- A01G 23/095
 - • Delimbers ([A01G 23/083](#) takes precedence; manufacture of wood shavings, chips, powder, or the like, per se [B27L 11/00](#))
- A01G 23/0955
 - • • {Self-propelled along standing trees}
- A01G 23/097
 - • • having a fixed delimbing head
- A01G 23/099
 - • Auxiliary devices, e.g. felling wedges
- A01G 23/10
 - Tapping of tree-juices, e.g. caoutchouc, gum
- A01G 23/12
 - • Knives or axes for tapping
- A01G 23/14
 - • Tapping-spouts; Receptacles for juices
- A01G 25/00**
 - Watering gardens, fields, sports grounds, or the like** ([special apparatus or adaptations for fertilising-liquids A01C 23/00](#); [nozzles or outlets, spraying apparatus B05B](#); [gravity flow, open channel irrigation ditch systems E02B 13/00](#))
- A01G 2025/003
 - {with an impermeable layer in the ground}
- A01G 2025/006
 - {Tubular drip irrigation dispensers mounted coaxially within water feeding tubes}

- A01G 25/02
 - Watering arrangements located above the soil which make use of perforated pipe-lines or pipe-lines with dispensing fittings, e.g. for drip irrigation ([perforated pipes per se B05B 1/20](#))
- A01G 25/023
 - • {Dispensing fittings for drip irrigation, e.g. drippers}
- A01G 25/026
 - • {Machines and methods for fixing the drippers in the pipe}
- A01G 25/06
 - Watering arrangements making use of perforated pipe-lines located in the soil ([perforated pipes per se B05B 1/20](#); [similar arrangements for drainage E02B 11/00](#))
- A01G 25/09
 - Watering arrangements making use of movable installations on wheels or the like
- A01G 25/092
 - • {movable around a pivot centre}
- A01G 25/095
 - • {winch-driven ([A01G 25/097](#) takes precedence)}
- A01G 25/097
 - • {guided or propelled along a water supply line with supply line traversing means}
- A01G 25/14
 - Hand watering devices, e.g. watering cans
- A01G 25/145
 - • {with pumps}
- A01G 25/16
 - Control of watering ([controlling of spraying devices B05B](#))
- A01G 25/162
 - • {Sequential operation}
- A01G 25/165
 - • {Cyclic operations, timing systems, timing valves, impulse operations}
- A01G 25/167
 - • {Control by humidity of the soil itself or of devices simulating soil or of the atmosphere; Soil humidity sensors}

- A01G 27/00**
Self-acting watering devices, e.g. for flower-pots
- A01G 27/001
 - {with intermittent watering means}
- A01G 27/003
 - {Controls for self-acting watering devices}
- A01G 27/005
 - {Reservoirs connected to flower-pots through conduits}
- A01G 27/006
 - {Reservoirs, separate from plant-pots, dispensing directly into rooting medium}
- A01G 27/008
 - {Component parts, e.g. dispensing fittings, level indicators}
- A01G 27/02
 - having a water reservoir, the main part thereof being located wholly around or directly beside the growth substrate ([A01G 27/06](#) takes precedence)
- A01G 27/04
 - using wicks or the like
- A01G 27/06
 - • having a water reservoir, the main part thereof being located wholly around or directly beside the growth substrate

- A01G 29/00**
Root feeders; Injecting fertilisers into the roots

- A01G 31/00**
Hydroponics; Cultivation without soil ([A01G 33/00](#) takes precedence)
- A01G 31/001
 - {Soilless culture substrates}
- A01G 2031/002
 - {Substrates with a flexible envelope}
- A01G 2031/003
 - {with foam substrates}
- A01G 2031/005
 - {with mineral wool substrates}
- A01G 2031/006
 - {with means for recycling the nutritive solution}
- A01G 2031/007
 - {with superabsorbents}
- A01G 2031/008
 - {with wood}

- A01G 31/02
 - Special apparatus therefor ([apparatus for cultivation in receptacles or greenhouses in general A01G 9/00](#); self-acting watering devices [A01G 27/00](#))
- A01G 31/04
 - • Hydroponic culture on conveyers
- A01G 31/042
 - • • {with containers travelling on a conveyor belt or the like}
- A01G 31/045
 - • • {with hanging containers travelling along a rail}
- A01G 31/047
 - • • {using a rotating drum or the like}
- A01G 31/06
 - • Hydroponic culture on racks or in stacked containers
- A01G 33/00**
 - **Cultivation of seaweed {or algae}**