

## ECLA EUROPEAN CLASSIFICATION

- A01C** **PLANTING; SOWING; FERTILISING** (combined with general working of soil [A01B49/04](#); parts, details or accessories of agricultural machines or implements, in general [A01B51/00](#) to [A01B75/00](#); [N: apparatus for spreading sand or salt [E01C](#); sowing and fertilising with aircraft [B64D1/16](#) to [B64D1/20](#)])
- A01C1/00** **Apparatus, or methods of use thereof, for testing or treating seed, roots, or the like, prior to sowing or planting** (chemicals therefor [A01N25/00](#) to [A01N65/00](#) [N: irradiation in general [B01J19/08](#)])
- [A01C1/00B](#) . [N: Potato seed cutters]
- [A01C1/02](#) . Germinating apparatus; Determining germination capacity of seeds or the like (germinating in preparation of malt [C12C1/027](#)) [C0711]
- [A01C1/02B](#) . . [N: Testing seeds for determining their viability or germination capacity] [N0711]
- [A01C1/04](#) . Arranging seeds on carriers, e.g. on tapes, on cords [N: Carrier compositions] [C9910]
- [A01C1/04A](#) . . [N: Tapes, bands or cords] [N9910]
- [A01C1/04B](#) . . [N: Sheets, multiple sheets or mats] [N9910]
- [A01C1/04C](#) . . [N: Carrier compositions] [N9910]
- [A01C1/06](#) . Coating or dressing seed [N: (encapsulated embryos or artificial seeds [A01H4/00D1](#); Seed coating compositions [C09D](#))] [C0711]
- [A01C1/08](#) . Immunising seed
- A01C3/00** **Treating manure; Manuring** ([N: ploughs with additional arrangements for putting manure under the soil [A01B17/00B](#)]; dung forks [A01D9/00](#); [N: treating of waste water, sewage or sludge [C02F](#)] organic fertilisers from waste or refuse [C05F](#)) [C0508]
- [A01C3/02](#) . Storage places for manure, e.g. cisterns for liquid manure; Installations for fermenting manure (sewerage structures [E03F5/00](#); silos, bunkers [E04H/22](#))
- [A01C3/02B](#) . . [N: for composted manure]
- [A01C3/02C](#) . . [N: Digesters]
- [A01C3/02D](#) . . [N: with heat recuperation means]
- [A01C3/02E](#) . . [N: with mixing or agitating devices]
- [A01C3/02F](#) . . [N: Covers, roofs or other structures for covering manure storage places (production of methane or biogas [C02F11/04](#); coverings for swimming or splash baths or pools [E04H4/10](#))] [N0508]
- [A01C3/04](#) . Manure loaders (loaders in general [B65G](#))
- [A01C3/06](#) . Manure distributors, e.g. dung distributors
- [A01C3/06B](#) . . [N: Side-spreaders]
- [A01C3/06C](#) . . [N: Spreading by using worm or screw conveyors] [N0508]
- [A01C3/08](#) . . for manure already laying on the soil

- A01C5/00**                    **Making or covering furrows or holes for sowing, planting or manuring**
- A01C5/02                    . Hand tools for making holes for sowing, planting or manuring ([transplanting devices for trees A01G23/02](#))
- A01C5/04                    . Machines for making or covering holes for sowing or planting
- A01C5/04B                    . . [N: with piercing buckets ([devices for laying-out or removing protective coverings for plants A01G13/02](#))]
- A01C5/06                    . Machines for making or covering drills or furrows for sowing or planting ([N: seeders depositing seeds in rows [A01C7/08](#)]; [ploughs for making ridges A01B13/02](#); [N: lifting devices for agricultural machines [A01B63/00](#)])
- A01C5/06B                    . . [N: Devices for making drills or furrows]
- A01C5/06B1                    . . . [N: with rotating tools]
- A01C5/06C                    . . [N: Devices for covering drills or furrows]
- A01C5/06C1                    . . . [N: Furrow packing devices, e.g. press wheels]
- A01C5/08                    . Machines for both manuring and sowing or both manuring and planting
- A01C7/00**                    **Sowing** ([N: with centrifugal wheels [A01C17/00](#)] arrangements for driving working parts [A01C19/00](#))
- A01C7/00B                    . [N: Dibble seeders]
- A01C7/00C                    . [N: using liquid seeding techniques]
- A01C7/00D                    . [N: Minimum till seeding]
- A01C7/00E                    . [N: Sod or grassland seeding ([A01C7/08](#) takes precedence)]
- A01C7/02                    . Hand sowing implements [N: ([fertiliser distributors for hand use A01C15/02](#); tools for cultivation [A01G1/12](#))]
- A01C7/04                    . Single-grain seeders with or without suction devices [N: ([regulation A01C7/10](#); for quantities of seed [A01C7/18](#))]
- A01C7/04B                    . . [N: using pneumatic means]
- A01C7/04B1                    . . . [N: Pneumatic seed wheels]
- A01C7/04B1B                    . . . . [N: with perforated seeding discs]
- A01C7/04C                    . . [N: Seed tape planters]
- A01C7/06                    . Seeders combined with fertilising apparatus ([N: [conducting and depositing seed A01C7/20](#); apparatus for two kinds of fertiliser [A01C15/00](#)]; combinations with soil working tools [A01B49/04](#))
- A01C7/08                    . Broadcast seeders; Seeders depositing seeds in rows [N: ([machines for making furrows A01C5/06](#); [combination of seed machines with other soil-working tools A01B49/06](#); [foldable apparatus A01B73/00](#))]
- A01C7/08B                    . . [N: Seeders depositing seeds in rows using pneumatic means]
- A01C7/08B1                    . . . [N: Ducts, distribution pipes or details thereof for pneumatic seeders]

- (non-pneumatic seed pipes A01C7/20C)] [N0610]
- A01C7/08B2 . . . [N: Pneumatic distribution heads for seeders] [N0610]
- A01C7/08C . . [N: Broadcast seeders]
- A01C7/08D . . [N: Tramlining]
- A01C7/08E . . [N: Sectional seeding]
- A01C7/10 . . Devices for adjusting the seed-box [N: Regulation of machines for depositing quantities at intervals]
- A01C7/10B . . . [N: Regulating or controlling the seed rate]
- A01C7/10B1 . . . . [N: Seed sensors]
- A01C7/10C . . . [N: Calibration of the seed rate]
- A01C7/12 . . Seeders with feeding wheels
- A01C7/12A . . . [N: for sowing seeds of different sizes] [N9412]
- A01C7/12A1 . . . . [N: using more than one feeding wheel; using double-run feeding wheels] [N9412]
- A01C7/12B . . . [N: Housings for feed rollers or wheels]
- A01C7/12B1 . . . . [N: with top delivery of the seeds]
- A01C7/12B2 . . . . [N: with bottom delivery of the seeds]
- A01C7/12C . . . [N: Stubbed rollers or wheels]
- A01C7/12D . . . [N: Cell rollers, wheels, discs or belts]
- A01C7/12D1 . . . . [N: Cell discs]
- A01C7/14 . . . Seeders with spoon or bucket wheels
- A01C7/16 . . Seeders with other distributing devices, e.g. brushes, discs, screws, slides ([N: with distributing slots [A01C15/06](#); with slides [A01C15/12C](#); with chains [A01C15/18](#)])
- A01C7/16B . . . [N: Gravity distributors]
- A01C7/16C . . . [N: Centrifugal distributors (pneumatic distributors [A01C15/04](#))]
- A01C7/18 . . Machines for depositing quantities of seed at intervals [N: (dibble seeders [A01C7/00B](#); single-grain seeders [A01C7/04](#); regulation [A01C7/10B](#); ridge marking [A01B69/02](#))]
- A01C7/18B . . [N: Foot valves]
- A01C7/20 . . Parts of seeders for conducting and depositing seed [N: (combined with fertilising apparatus [A01C7/06](#))]
- A01C7/20B . . [N: Mounting of the seeding tools]
- A01C7/20B1 . . . [N: comprising depth regulation means]
- A01C7/20B2 . . . [N: comprising pressure regulation means]
- A01C7/20C . . [N: Seed pipes]
- A01C7/20D . . [N: Chassis; Coupling means to a tractor or the like; Lifting means; Side markers (hoppers for seeders or spreaders [A01C15/00F2](#))]
- A01C9/00** **Potato planters** ([N: planting by hand [A01C7/02](#)]; combinations with soil working tools [A01B49/04](#))
- A01C9/02 . . with conveyer belts
- A01C9/04 . . with bucket wheels [N: (with other distributing devices [A01C9/08](#))]

- A01C9/06 . with piercing or grasping devices
- A01C9/08 . with other distributing devices e.g. flaps, screws, horizontal turning plates [N: (with bucket wheels [A01C9/04](#))]
- A01C11/00** **Transplanting machines** ([N: hand sowing [A01C7/02](#)]; carriers for supporting persons [A01B75/00](#); transplanting devices for trees [A01G23/02](#))
- A01C11/00B . [N: for aquatic plants; for planting underwater, e.g. rice] [N0508]
- A01C11/00C . [N: Other parts or details or planting machines] [N0508]
- A01C11/02 . for seedlings
- A01C11/02B . . [N: Transplanting machines using seedling trays; Devices for removing the seedlings from the trays] [N0508]
- A01C11/04 . for deeper setting or shifting of plants
- A01C13/00** **Machines or apparatus for consolidating soil around plants**
- A01C14/00** **Methods or apparatus for planting not provided for in other groups of this subclass** [N0611]
- A01C15/00** **Fertiliser distributors** (7/06 takes precedence; [N: combined with seeders [A01C7/06](#)]; arrangements for driving working parts [A01C19/00](#); [N: harrows with special additional arrangements [A01B19/00](#)]; sand, gravel or salt spreaders for roads [E01C19/20](#))
- A01C15/00B . [N: with slowly turning wheels]
- A01C15/00C . [N: with oscillating distributing spouts]
- A01C15/00D . [N: Bulk fertiliser or grain handling in the field or on the farm]
- A01C15/00F . [N: Undercarriages, tanks, hoppers, stirrers specially adapted for seeders or fertiliser distributors]
- A01C15/00F2 . . [N: Hoppers]
- A01C15/00F2B . . . [N: with agitators in the hopper]
- A01C15/00F3 . . [N: Aprons; Deflecting plates; Band-spreading attachments]
- A01C15/02 . for hand use [N: (hand sowing [A01C7/02](#))]
- A01C15/04 . using blowers
- A01C15/06 . with distributing slots, [N: i.e. for dosing, e.g. adjustable openings]
- A01C15/08 . . with pushers or stirrers in the slots
- A01C15/10 . . . with reciprocating pushers [N: or stirrers in front of the slots (with endless chains [A01C15/18](#))]
- A01C15/12 . with movable parts of the receptacle

- A01C15/12B . . [N: with moving floor parts (with endless chains [A01C15/18](#))]
- A01C15/12C . . [N: with adjustable shutters or slits]
- A01C15/12C1 . . . [N: with pushers or stirrers in the slits]
- A01C15/12C2 . . . [N: with pushers or stirrers in front of the slits (with endless chains [A01C15/18](#))]
  
- A01C15/14 . with means for lifting out the fertiliser [N: (feeding wheels, cell wheels, discs [A01C7/12](#), bucket wheels [A01C7/14](#))]
  
- A01C15/16 . with means for pushing out the fertiliser, e.g. by a roller
  
- A01C15/18 . with endless chains, [N: i.e. side transporting elements, e.g. auger or screw conveyers, swash plates]
  
- A01C17/00** **Fertilisers or seeders with centrifugal wheels** ([N: hand-used implements [A01C7/02](#), [A01C15/02](#); fertiliser distributors [A01C15/00](#)]; mechanical throwing machines for articles or solid bulk materials, in general [B65G31/00](#); sand, gravel or salt spreaders [E01C19/20](#))
  
- A01C17/00B . [N: Centrifugal throwing devices with a vertical axis]
- A01C17/00C . [N: Centrifugal throwing devices with a horizontal axis]
- A01C17/00D . [N: Driving mechanisms for the throwing devices]
- A01C17/00F . [N: Regulating or dosing devices]
- A01C17/00F2 . . [N: Devices controlling the quantity or the distribution pattern]
  
- A01C19/00** **Arrangements for driving working parts of fertilisers or seeders** [N: ([A01C17/00D](#) takes precedence)]
  
- A01C19/02 . by a motor
- A01C19/04 . by a ground-engaging wheel
- A01C19/04B . . [N: the drive coupling being controlled by lifting or lowering of the seeding tools]
  
- A01C21/00** **Methods of fertilizing, [N: sowing or planting]** (fertilisers C05; soil-conditioning or soil-stabilising materials [C09K17/00](#))
  
- A01C21/00B . [N: Apparatus for sowing fertiliser; Fertiliser drill]
- A01C21/00C . [N: Following a specific plan, e.g. pattern (precision agriculture in general [A01B79/00P](#); steering or guiding agricultural machines or implements [A01B69/00](#))] [N1204]
- A01C21/00D . [N: Determining fertilization requirements] [N1204]
  
- A01C23/00** **Distributing devices specially adapted for liquid manure or other fertilising liquid, including ammonia, e.g. transport tanks, sprinkling wagons** (watering fields in general [A01G25/00](#); spraying or applying liquids or other fluent materials in general [B05](#))
  
- A01C23/00B . [N: Sludge spreaders, e.g. liquid manure spreaders]

- A01C23/00B1 . . [N: provided with auxiliary arrangements, e.g. pumps, agitators, cutters]
- A01C23/00B2 . . [N: Distributing devices, e.g. for rotating, throwing]
- A01C23/00B2B . . . [N: Nozzles, valves, splash plates]
- A01C23/00C . [N: Distribution of liquid fertilisers by gravity flow (distribution of liquid ammonia in or on the soil [A01C23/02C1](#); under pressure [A01C23/04](#))]
- A01C23/00D . [N: Metering or regulating systems]
- A01C23/00E . [N: Tanks, chassis or related parts]
- A01C23/02 . Special arrangements for delivering the liquid directly into the soil
- A01C23/02B . . [N: Sludge injectors, i.e. liquid manure injectors]
- A01C23/02B1 . . . [N: Continuous injection tools (devices for making drill or furrows [A01C5/06C](#))]
- A01C23/02C . . [N: for liquid or gas fertilisers]
- A01C23/02C1 . . . [N: for ammonia]
- A01C23/02C2 . . . [N: Continuous injection tools]
- A01C23/02C3 . . . [N: Localised non-continuous injection tools, e.g. pal injectors, spike wheels]
- A01C23/02D . . [N: Other methods for delivering fertiliser into the soil (sowing granular fertiliser [A01C21/00B](#); subirrigation [A01G25/06](#))]
- A01C23/02D1 . . . [N: Contactless injection into the soil]
- A01C23/04 . Distributing under pressure; Distributing mud; Adaptation of watering systems for fertilising-liquids
- A01C23/04B . . [N: Adding fertiliser to watering systems (adding insecticides or herbicides [A01M7/00](#))]
- A01C23/04C . . [N: Filling devices for liquid manure or slurry tanks (arrangements for connecting hoses of the quick-acting type [F16L37/00](#))]
- A01C23/04D . . [N: Spraying of liquid fertilisers (gravity flow [A01C23/00C](#); watering gardens, fields, sports grounds or the like [A01G25/00](#))]