

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

AGRICULTURE

A01 AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING

A01C PLANTING; SOWING; FERTILISING (combined with general working of soil [A01B 49/04](#); parts, details or accessories of agricultural machines or implements, in general [A01B 51/00](#) - [A01B 75/00](#); {apparatus for spreading sand or salt [E01C](#); sowing and fertilising with aircraft [B64D 1/16](#) - [B64D 1/20](#)})

1/00	Apparatus, or methods of use thereof, for testing or treating seed, roots, or the like, prior to sowing or planting (chemicals therefor A01N 25/00 - A01N 65/00 {irradiation in general B01J 19/08})	5/00	Making or covering furrows or holes for sowing, planting or manuring
1/005	. {Potato seed cutters}	5/02	. Hand tools for making holes for sowing, planting or manuring (transplanting devices for trees A01G 23/02)
1/02	. Germinating apparatus; Determining germination capacity of seeds or the like (germinating in preparation of malt C12C 1/027)	5/04	. Machines for making or covering holes for sowing or planting
1/025	. . {Testing seeds for determining their viability or germination capacity}	5/045	. . {with piercing buckets (devices for laying-out or removing protective coverings for plants A01G 13/02)}
1/04	. Arranging seeds on carriers, e.g. on tapes, on cords {Carrier compositions}	5/06	. Machines for making or covering drills or furrows for sowing or planting ({ seeders depositing seeds in rows A01C 7/08 ; ploughs for making ridges A01B 13/02 ; lifting devices for agricultural machines A01B 63/00 })
1/042	. . {Tapes, bands or cords}	5/062	. . {Devices for making drills or furrows}
1/044	. . {Sheets, multiple sheets or mats}	5/064	. . . {with rotating tools}
1/046	. . {Carrier compositions}	5/066	. . {Devices for covering drills or furrows}
2001/048	. . {Machines}	5/068	. . . {Furrow packing devices, e.g. press wheels}
1/06	. Coating or dressing seed ({ encapsulated embryos or artificial seeds A01H 4/006 ; seed coating compositions C09D })	5/08	. Machines for both manuring and sowing or both manuring and planting
1/08	. Immunising seed		
3/00	Treating manure; Manuring ({ploughs with additional arrangements for putting manure under the soil A01B 17/002; dung forks A01D 9/00 ; treating of waste water, sewage or sludge C02F} organic fertilisers from waste or refuse C05F})	7/00	Sowing ({with centrifugal wheels A01C 17/00 arrangements for driving working parts A01C 19/00})
3/02	. Storage places for manure, e.g. cisterns for liquid manure; Installations for fermenting manure (sewerage structures E03F 5/00 ; silos, bunkers E04H 7/22)	7/002	. {Dibble seeders}
3/021	. . {for composted manure}	7/004	. {using liquid seeding techniques}
3/023	. . {Digesters}	7/006	. {Minimum till seeding}
3/025	. . {with heat recuperation means}	7/008	. {Sod or grassland seeding (A01C 7/08 takes precedence)}
3/026	. . {with mixing or agitating devices}	7/02	. Hand sowing implements ({ fertiliser distributors for hand use A01C 15/02 ; tools for cultivation A01G 20/30, A01G 20/40 })
3/028	. . {Covers, roofs or other structures for covering manure storage places (production of methane or biogas C02F 11/04 ; coverings for swimming or splash baths or pools E04H 4/10 })	7/04	. Single-grain seeders with or without suction devices ({ regulation A01C 7/10 ; for quantities of seed A01C 7/18 })
3/04	. Manure loaders (loaders in general B65G)	7/042	. . {using pneumatic means}
3/06	. Manure distributors, e.g. dung distributors	7/044	. . . {Pneumatic seed wheels}
3/063	. . {Side-spreaders}	7/046 {with perforated seeding discs}
3/066	. . {Spreading by using worm or screw conveyors}	7/048	. . {Seed tape planters}
3/08	. . for manure already laying on the soil	7/06	. Seeders combined with fertilising apparatus ({ conducting and depositing seed A01C 7/20 ; apparatus for two kinds of fertiliser A01C 15/00 ; combinations with soil working tools A01B 49/04 })

7/08	• Broadcast seeders; Seeders depositing seeds in rows {(machines for making furrows A01C 5/06 ; combination of seed machines with other soil-working tools A01B 49/06 ; foldable apparatus A01B 73/00)}	11/00	Transplanting machines ({hand sowing A01C 7/02 }; carriers for supporting persons A01B 75/00 ; transplanting devices for trees A01G 23/02)
7/081	• . {Seeders depositing seeds in rows using pneumatic means}	11/003	• {for aquatic plants; for planting underwater, e.g. rice}
7/082	• . . {Ducts, distribution pipes or details thereof for pneumatic seeders (non-pneumatic seed pipes A01C 7/206)}	11/006	• {Other parts or details or planting machines}
7/084	• . . . {Pneumatic distribution heads for seeders}	11/02	• for seedlings
7/085	• . {Broadcast seeders}	11/025	• . {Transplanting machines using seedling trays; Devices for removing the seedlings from the trays}
7/087	• . {Tramlining}	11/04	• for deeper setting or shifting of plants
7/088	• . {Sectional seeding}	13/00	Machines or apparatus for consolidating soil around plants
7/10	• . Devices for adjusting the seed-box {Regulation of machines for depositing quantities at intervals}	14/00	Methods or apparatus for planting not provided for in other groups of this subclass
7/102	• . . {Regulating or controlling the seed rate}	15/00	Fertiliser distributors (A01C 7/06 takes precedence; {combined with seeders A01C 7/06 }; arrangements for driving working parts A01C 19/00 ; {harrows with special additional arrangements A01B 19/00 }; sand, gravel or salt spreaders for roads E01C 19/20)
7/105	• . . . {Seed sensors}	15/001	• {with slowly turning wheels}
7/107	• . . {Calibration of the seed rate}	15/002	• {with oscillating distributing spouts}
7/12	• . Seeders with feeding wheels	15/003	• {Bulk fertiliser or grain handling in the field or on the farm}
7/121	• . . {for sowing seeds of different sizes}	15/005	• {Undercarriages, tanks, hoppers, stirrers specially adapted for seeders or fertiliser distributors}
7/122	• . . . {using more than one feeding wheel; using double-run feeding wheels}	15/006	• . {Hoppers}
7/123	• . . . {Housings for feed rollers or wheels}	15/007	• . . {with agitators in the hopper}
7/124	• . . . {with top delivery of the seeds}	15/008	• . {Aprons; Deflecting plates; Band-spreading attachments}
7/125	• . . . {with bottom delivery of the seeds}	15/02	• for hand use {(hand sowing A01C 7/02)}
7/126	• . . {Stubbed rollers or wheels}	15/04	• using blowers
7/127	• . . {Cell rollers, wheels, discs or belts}	15/06	• with distributing slots {, i.e. for dosing, e.g. adjustable openings}
7/128	• . . . {Cell discs}	15/08	• . with pushers or stirrers in the slots
7/14	• . . Seeders with spoon or bucket wheels	15/10	• . . with reciprocating pushers {or stirrers in front of the slots (with endless chains A01C 15/18)}
7/16	• . Seeders with other distributing devices, e.g. brushes, discs, screws, slides {(with distributing slots A01C 15/06 ; with slides A01C 15/124 }; with chains A01C 15/18)}	15/12	• with movable parts of the receptacle
7/163	• . . {Gravity distributors}	15/122	• . {with moving floor parts (with endless chains A01C 15/18)}
7/166	• . . {Centrifugal distributors (pneumatic distributors A01C 15/04)}	15/124	• . {with adjustable shutters or slits}
7/18	• Machines for depositing quantities of seed at intervals {(dibble seeders A01C 7/002 ; single-grain seeders A01C 7/04 ; regulation A01C 7/102 ; ridge marking A01B 69/02)}	15/126	• . . {with pushers or stirrers in the slits}
7/185	• . {Foot valves}	15/128	• . . {with pushers or stirrers in front of the slits (with endless chains A01C 15/18)}
7/20	• Parts of seeders for conducting and depositing seed {(combined with fertilising apparatus A01C 7/06)}	15/14	• with means for lifting out the fertiliser {(feeding wheels, cell wheels, discs A01C 7/12 , bucket wheels A01C 7/14)}
7/201	• . {Mounting of the seeding tools}	15/16	• with means for pushing out the fertiliser, e.g. by a roller
7/203	• . . {comprising depth regulation means}	15/18	• with endless chains {, i.e. side transporting elements, e.g. auger or screw conveyors, swash plates}
7/205	• . . {comprising pressure regulation means}	17/00	Fertilisers or seeders with centrifugal wheels ({hand-used implements A01C 7/02 , A01C 15/02 ; fertiliser distributors A01C 15/00 }; mechanical throwing machines for articles or solid bulk materials, in general B65G 31/00 ; sand, gravel or salt spreaders E01C 19/20)
7/206	• . {Seed pipes}	17/001	• {Centrifugal throwing devices with a vertical axis}
7/208	• . {Chassis; Coupling means to a tractor or the like; Lifting means; Side markers (hoppers for seeders or spreaders A01C 15/006)}	17/003	• {Centrifugal throwing devices with a horizontal axis}
9/00	Potato planters ({planting by hand A01C 7/02 }; combinations with soil working tools A01B 49/04)		
9/02	• with conveyor belts		
9/04	• with bucket wheels {(with other distributing devices A01C 9/08)}		
9/06	• with piercing or grasping devices		
9/08	• with other distributing devices, e.g. flaps, screws, horizontal turning plates {(with bucket wheels A01C 9/04)}		

- 17/005 . {Driving mechanisms for the throwing devices}
- 17/006 . {Regulating or dosing devices}
- 17/008 . . {Devices controlling the quantity or the distribution pattern}
- 19/00 Arrangements for driving working parts of fertilisers or seeders** {(A01C 17/005 takes precedence)}
- 19/02 . by a motor
- 19/04 . by a ground-engaging wheel
- 19/045 . . {the drive coupling being controlled by lifting or lowering of the seeding tools}
- 21/00 Methods of fertilizing, {sowing or planting}** (fertilisers C05; soil-conditioning or soil-stabilising materials C09K 17/00)
- 21/002 . {Apparatus for sowing fertiliser; Fertiliser drill}
- 21/005 . {Following a specific plan, e.g. pattern (precision agriculture in general A01B 79/005; steering or guiding agricultural machines or implements A01B 69/00)}
- 21/007 . {Determining fertilization requirements}
- 23/00 Distributing devices specially adapted for liquid manure or other fertilising liquid, including ammonia, e.g. transport tanks, sprinkling wagons** (watering fields in general A01G 25/00; spraying or applying liquids or other fluent materials in general B05)
- 23/001 . {Sludge spreaders, e.g. liquid manure spreaders}
- 23/002 . . {provided with auxiliary arrangements, e.g. pumps, agitators, cutters}
- 23/003 . . {Distributing devices, e.g. for rotating, throwing}
- 23/005 . . . {Nozzles, valves, splash plates}
- 23/006 . {Distribution of liquid fertilisers by gravity flow (distribution of liquid ammonia in or on the soil A01C 23/024; under pressure A01C 23/04)}
- 23/007 . {Metering or regulating systems}
- 23/008 . {Tanks, chassis or related parts}
- 23/02 . Special arrangements for delivering the liquid directly into the soil
- 23/021 . . {Sludge injectors, i.e. liquid manure injectors}
- 23/022 . . . {Continuous injection tools (devices for making drill or furrows A01C 5/066)}
- 23/023 . . {for liquid or gas fertilisers}
- 23/024 . . . {for ammonia}
- 23/025 . . . {Continuous injection tools}
- 23/026 . . . {Localised non-continuous injection tools, e.g. pal injectors, spike wheels}
- 23/027 . . {Other methods for delivering fertiliser into the soil (sowing granular fertiliser A01C 21/002; subirrigation A01G 25/06)}
- 23/028 . . . {Contactless injection into the soil}
- 23/04 . Distributing under pressure; Distributing mud; Adaptation of watering systems for fertilising-liquids
- 23/042 . . {Adding fertiliser to watering systems (adding insecticides or herbicides A01M 7/00)}
- 23/045 . . {Filling devices for liquid manure or slurry tanks (arrangements for connecting hoses of the quick-acting type F16L 37/00)}
- 23/047 . . {Spraying of liquid fertilisers (gravity flow A01C 23/006; watering gardens, fields, sports grounds or the like A01G 25/00)}