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})

WARNING
In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the
scheme.

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})
1/005  . . [Potato seed cutters]
1/02  . . Germinating apparatus: Determining germination
capacity of seeds or the like (germinating in
preparation of malt C12C 1/027)
1/025  . . {Testing seeds for determining their viability or
germination capacity}
1/04  . . {Arranging seeds on carriers, e.g. on tapes, on cords
{Carrier compositions}}
1/042  . . {Tapes, bands or cords}
1/044  . . {Sheets, multiple sheets or mats}
1/046  . . {Carrier compositions}
2001/048  . . {Machines}
1/06  . . Coating or dressing seed { (encapsulated embryos
or artificial seeds A01H 4/006; seed coating
compositions C09D) }
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)
3/02  . . Storage places for manure, e.g. cisterns for liquid
manure; Installations for fermenting manure
(sewage structures E03F 5/00; silos, bunkers
E04H 7/22)
3/021  . . (for composted manure)
3/023  . . {Digesters}
3/025  . . {with heat recuperation means}
3/026  . . {with mixing or agitating devices}
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) }
3/04  . . Manure loaders (loaders in general B65G)
3/06  . . Manure distributors, e.g. dung distributors
3/063  . . {Side-spreaders}

3/066  . . {Spreading by using worm or screw conveyors}
3/08  . . for manure already laying on the soil

5/00  Making or covering furrows or holes for sowing,
planting or manuring (ploughs for making ridges
A01B 13/02)
5/02  . . Hand tools for making holes for sowing, planting
or manuring (transplanting devices for trees
A01G 23/02)
5/04  . . Machines for making or covering holes for sowing
or planting
5/045  . . . . (with piercing buckets (devices for laying-out
or removing protective coverings for plants
A01G 13/02))
5/06  . . Machines for making or covering drills or furrows
for sowing or planting
5/062  . . . {Devices for making drills or furrows}
5/064  . . . . {with rotating tools}
5/066  . . . . {Devices for covering drills or furrows}
5/068  . . . . {Furrow packing devices, e.g. press wheels}
5/08  . . Machines for both manuring and sowing or both
manuring and planting

7/00  Sowing { (with centrifugal wheels A01C 17/00)
arrangements for driving working parts A01C 19/00)
7/002  . . {Dibble seeders}
7/004  . . {using liquid seeding techniques}
7/006  . . {Minimum till seeding}
7/008  . . {Sod or grassland seeding (A01C 7/08 takes
precedence) }
7/02  . . Hand sowing implements {(fertiliser distributors
for hand use A01C 15/02; tools for cultivation
A01G 20/30, A01G 20/40) }
7/04  . . Single-grain seeders with or without suction devices
{ (regulation A01C 7/10; for quantities of seed
A01C 7/18) }
7/042  . . . . {using pneumatic means}
7/044  . . . {Pneumatic seed wheels}
7/046  . . . . . {with perforated seeding discs}
7/048  . . . . {Seed tape planters}
9/08 . with other distributing devices, e.g. flaps, screws, horizontal turning plates { (with bucket wheels A01C 9/04)}

11/00 Transplanting machines { (hand sowing A01C 7/02); carriers for supporting persons A01B 75/00; transplanting devices for trees A01G 23/02}

11/00 . for aquatic plants; for planting underwater, e.g. rice

11/06 . Other parts or details or planting machines

11/02 . for seedlings

11/025 . Transplanting machines using seedling trays; Devices for removing the seedlings from the trays

11/04 . for deeper setting or shifting of plants

13/00 Machines or apparatus for consolidating soil around plants

14/00 Methods or apparatus for planting not provided for in other groups of this subclass

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)

15/00 . with slowly turning wheels

15/002 . with oscillating distributing spouts

15/003 . Bulk fertiliser or grain handling in the field or on the farm

15/005 . { Undercarriages, tanks, hoppers, stirrers specially adapted for seeders or fertiliser distributors}

15/006 . { Hoppers}

15/007 . . (with agitators in the hopper)

15/008 . . { Aprons; Deflecting plates; Band-spreading attachments}

15/008 . . for hand use { (hand sowing A01C 7/02)}

15/04 . using blowers

15/06 . with distributing slots { i.e. for dosing, e.g. adjustable openings}

15/08 . . with pushers or stirrers in the slots

15/10 . . with reciprocating pushers { or stirrers in front of the slots (with endless chains A01C 15/18)}

15/12 . . with movable parts of the receptacle

15/122 . . { with moving floor parts (with endless chains A01C 15/18)}

15/124 . . { with adjustable shutters or slits}

15/126 . . { with pushers or stirrers in the slits}

15/128 . . { with pushers or stirrers in front of the slits (with endless chains A01C 15/18)}

15/14 . with means for lifting out the fertiliser { (feeding wheels, cell wheels, discs A01C 7/12; bucket wheels A01C 7/14)}

15/16 . with means for pushing out the fertiliser, e.g. by a roller

15/18 . with endless chains { i.e. side transporting elements, e.g. auger or screw conveyors, swash plates}

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

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 49/04; foldable apparatus A01B 73/00)}

7/081 . . {Seeders depositing seeds in rows using pneumatic means}

7/082 . . {Ducts, distribution pipes or details thereof for pneumatic seeders (non-pneumatic seed pipes A01C 7/06)}

7/084 . . {Pneumatic distribution heads for seeders}

7/085 . . {Broadcast seeders}

7/087 . . {Tramlining}

7/088 . . {Sectional seeding}

7/10 . . Devices for adjusting the seed-box { Regulation of machines for depositing quantities at intervals}

7/102 . . {Regulating or controlling the seed rate}

7/105 . . . { Seed sensors}

7/107 . . . {Calibration of the seed rate}

7/12 . . . {Seeders with feeding wheels}

7/121 . . . {for sowing seeds of different sizes}

7/122 . . . . { using more than one feeding wheel; using double-run feeding wheels}

7/123 . . . . {Housings for feed rollers or wheels}

7/124 . . . . . { with top delivery of the seeds}

7/125 . . . . . . { with bottom delivery of the seeds}

7/126 . . . . . {Stubbed rollers or wheels}

7/127 . . . . {Cell rollers, wheels, discs or belts}

7/128 . . . . {Cell discs}

7/14 . . . Seeders with spoon or bucket wheels

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)}

7/163 . . . {Gravity distributors}

7/166 . . . {Centrifugal distributors (pneumatic distributors A01C 15/04)}

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)}

7/185 . . . {Foot valves}

7/20 . . Parts of seeders for conducting and depositing seed { (combined with fertilising apparatus A01C 7/06)}

7/201 . . . {Mounting of the seeding tools}

7/203 . . . . {comprising depth regulation means}

7/205 . . . . {comprising pressure regulation means}

7/206 . . . . . {Seed pipes}

7/208 . . . . {Chassis; Coupling means to a tractor or the like; Lifting means; Side markers (hoppers for seeders or spreaders A01C 15/006)}

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
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)

17/001. [Centrifugal throwing devices with a vertical axis]
17/003. [Centrifugal throwing devices with a horizontal axis]
17/005. [Driving mechanisms for the throwing devices]
17/006. [Regulating or dosing devices]
17/008. . . [Devices controlling the quantity or the distribution pattern]

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

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]

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]
23/002. . 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

Adding fertiliser to watering systems (adding insecticides or herbicides A01M 7/00)

Filling devices for liquid manure or slurry tanks (arrangements for connecting hoses of the quick-acting type F16L 37/00)

Spraying of liquid fertilisers (gravity flow A01C 23/006; watering gardens, fields, sports grounds or the like A01G 25/00)