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
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 { (seeders depositing seeds in rows A01C 7/08); ploughs for making ridges A01B 13/02; {lifting devices for agricultural machines A01B 63/00})
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}
11/08 Transplanting machines ("hand sowing A01C 7/02"); carriers for supporting persons A01B 75/00; transplanting devices for trees A01G 23/02)
11/03 . . . [for aquatic plants; for planting underwater, e.g. rice]
11/06 . . . [Other parts or details of 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)
15/001 . . . . [with slowly turning wheels]
15/002 . . . . [with oscillating distributing spots]
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}
15/02 . . . . . 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 slots]
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}

A01C
**A01C**

**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**)
- [Centrifugal throwing devices with a vertical axis]
- [Centrifugal throwing devices with a horizontal axis]
- [Driving mechanisms for the throwing devices]
- [Regulating or dosing devices]
- [Devices controlling the quantity or the distribution pattern]

**19/00 Arrangements for driving working parts of fertilisers or seeders**
- ([**A01C 17/005 takes precedence**])
  - by a motor
  - by a ground-engaging wheel
- [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**)
- [Apparatus for sowing fertiliser; Fertiliser drill]
- [Following a specific plan, e.g. pattern (precision agriculture in general **A01B 79/005**; steering or guiding agricultural machines or implements **A01B 69/00**)]

- [Determining fertilization requirements]

**23/00 Distributing devices specially adapted for liquid manure or other fertilizing 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**)
- [Sludge spreaders, e.g. liquid manure spreaders]
- [Provided with auxiliary arrangements, e.g. pumps, agitators, cutters]
- [Distributing devices, e.g. for rotating, throwing]
- [Nozzles, valves, splash plates]
- [Distribution of liquid fertilisers by gravity flow (distribution of liquid ammonia in or on the soil **A01C 23/024**; under pressure **A01C 23/04**)]
- [Measuring or regulating systems]
- [Tanks, chassis or related parts]
- [Special arrangements for delivering the liquid directly into the soil]
- [Sludge injectors, i.e. liquid manure injectors]
- [Continuous injection tools (devices for making drill or furrows **A01C 5/066**)]
- [for liquid or gas fertilisers]
- [for ammonia]
- [Continuous injection tools]
- [Localised non-continuous injection tools, e.g. pal injectors, spike wheels]
- [Other methods for delivering fertiliser into the soil (sowing granular fertiliser **A01C 21/002**; subirrigation **A01G 25/06**)]
- [Contactless injection into the soil]
- [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**)]