

A01B

SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL (making or covering furrows or holes for sowing, planting, or manuring A01C5/00; soil working for engineering purposes E01, E02, E21; [N: measuring areas for agricultural purposes G01B])

Informative references

Attention is drawn to the following places, which may be of interest for search:

Seat constructions	A47C
Wheels	B60B
Shelters for drivers	B60J
Seats specially adapted for vehicles, arrangement or mounting of seats in vehicles	B60N 2/00
Wheel scrapers	B60S 1/68
Making or covering furrows or holes for sowing, planting, or manuring	A01C 5/00
Soil working for engineering purposes	E01, E02, E21
Measuring areas for agricultural purposes	G01B

Special rules of classification within this subclass

The following IPC groups are not used in the internal ECLA classification system. Subject matter covered by these groups is classified in the following ECLA groups:

[A01B 69/04](#) covered by [A01B 69/008](#)

[A01B 69/06](#) covered by [A01B 69/005](#)

[A01B 69/08](#) covered by [A01B 69/006](#)

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Plant	Any of a kingdom (Plantae) of multicellular eukaryotic mostly photosynthetic organisms typically lacking locomotive movement or obvious nervous or sensory organs and possessing cellulose cell walls.
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A01B 1/00

Hand tools (edge trimmers for lawns A01G3/06; [N: machines for working soil A01B35/00; making hand tools B21D])

Definition Statement

This subclass/group covers:

Hand tools for gardening or for agricultural purposes.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Edge trimmers for lawns	A01G 3/06
Machines for working soil	A01B 35/00
Making hand tools	B21D

A01B 1/02

Spades; Shovels [N: hand-operated dredgers E02F3/02]

Definition Statement

This subclass/group covers:

Hand shovels for gardening or agricultural purposes.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Shovels for snow	E01H 5/02
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Hand held dredgers or shovels	E02F 3/02
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A01B 1/06

Hoes; Hand cultivators [N: rakes A01D7/00; forks A01D9/00; picks B25D]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Rakes	A01D 7/00
Forks	A01D 9/00
Percussive tools	B25D

A01B 1/22

Attaching the blades or the like to handles (handles for tools, or their attachment, in general B25G); Interchangeable or adjustable blades

Informative references

Attention is drawn to the following places, which may be of interest for search:

Handles for tools, or their attachment, in general	B25G
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A01B 3/00

Ploughs with fixed plough-shares

A01B 3/24

Tractor-drawn ploughs (A01B3/04 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Animal-drawn ploughs	A01B 3/04
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A01B 3/74

Use of electric power for propelling ploughs [N: for rotary cultivators or the like (electric current collectors B60L5/00)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electric current collectors	B60L 5/00
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A01B 5/00

Ploughs with rolling non-driven tools, e.g. discs (with rotary driven tools A01B9/00)

References relevant to classification in this group

This subclass/group does not cover:

Ploughs with rotary driven tools	A01B 9/00
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A01B 7/00

Disc-like soil-working implements usable either as ploughs or as harrows, or the like

A01B 9/00

Ploughs with rotary driven tools (tilling implements with rotary driven tools A01B33/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tilling implements with rotary driven tools	A01B 33/00
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A01B 11/00

Ploughs with oscillating, digging or piercing tools [N: driven or not]

A01B 13/00

Ploughs or like machines for special purposes (for drainage E02B11/02); [N: Ditch diggers, trench ploughs, forestry ploughs, ploughs for land or marsh reclamation (machines for aerating meadows A01B45/02; making furrows A01C5/00; dredging machines in general E02F)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Machines for aerating meadows	A01B 45/02
Making furrows	A01C 5/00
Drainage device-laying apparatus	E02B 11/02
Dredging machines in general	E02F

A01B 13/02

For making or working ridges, e.g. with symmetrically arranged mouldboards, [N: e.g. ridging plough]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Machines for planting potatoes or tubers	A01C 9/00
Machines for transplanting seedlings	A01C 11/00

A01B 13/06

Arrangements for preventing damage to the vines, or the like, [N: e.g. hydraulic (machines specially adapted for working in vineyards A01B39/16)]

References relevant to classification in this group

This subclass/group does not cover:

Machines specially adapted for working in vineyards	A01B 39/16
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A01B 13/08

For working subsoil

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details about the subsoiler's or moulboard's blades	A01B 15/08
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Synonyms and Keywords

In patent documents the following expression "Subsoiler" and "moulboard" are often used as synonyms.,

A01B 15/00

Elements, tools, or details of ploughs

A01B 15/04

Shares [N: (making ploughshares by rolling B21H)]

Definition statement

This subclass/group covers:

Details about the subsoiler's or moulboard's blades

Informative references

Attention is drawn to the following places, which may be of interest for search:

Making ploughshares by rolling	B21H
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A01B 15/08

Mouldboards

Definition statement

This subclass/group covers:

Details about the subsoiler's or moulboard's blades

Informative references

Attention is drawn to the following places, which may be of interest for search:

Subsoiler, machines for working subsoil	A01B 13/08
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A01B 15/14

Frames (means or arrangements to facilitate transportation A01B73/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Means or arrangements to facilitate transportation	A01B 73/00
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A01B 15/16

Discs (bearings therefor A01B71/04); Scrapers for cleaning discs; Sharpening attachments (sharpening in general B24)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Bearings of rotating parts	A01B 71/04
Shaping in general	B24

A01B 17/00

Ploughs with special arrangements, e.g. means for putting manure under the soil, clod-crushers (A01B49/00 takes precedence); [N: Means for breaking the subsoil]

References relevant to classification in this group

This subclass/group does not cover:

Combined machines	A01B 49/00
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A01B 17/002

[N: Means for putting manure, debris, straw or the like under the soil (to plough-in weeds A01B39/18)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

To plough-in weeds	A01B 39/18
Liquid manure or sludge injectors	A01C 23/02

A01B 19/00

Harrows with non-rotating tools [N: (harrows for working in vineyards A01B39/16)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Harrows for working in vineyards	A01B 39/16
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A01B 21/00

Harrows with rotary non-driven tools (tilling implements with rotary driven tools A01B33/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tilling implements with rotary driven tools	A01B 33/00
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A01B 23/00

Elements, tools, or details of harrows

A01B 23/04

Frames (means or arrangements to facilitate transportation A01B73/00); Drawing-arrangements

Informative references

Attention is drawn to the following places, which may be of interest for search:

Means or arrangements to facilitate transportation	A01B 73/00
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A01B 23/06

Discs (A01B15/16 takes precedence; bearings therefor A01B71/04); Scrapers for cleaning discs; Sharpening attachments; [N: Lubrication of bearings] (sharpening in general B24)

References relevant to classification in this group

This subclass/group does not cover:

Discs; Scrapers for cleaning discs; Sharpening attachments	A01B 15/16
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Bearings of rotating parts	A01B 71/04
Sharpening in general	B24

A01B 25/00

Harrows with special additional arrangements, e.g. means for distributing fertilisers; Harrows for special purposes (A01B39/00 takes precedence; [N: fertiliser distributors

A01C15/00]

References relevant to classification in this group

This subclass/group does not cover:

Other machines specially adapted for working soil on which crops are growing, e.g. harrows for special purposes	A01B 39/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fertiliser distributors	A01C 15/00
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A01B 27/00

Clod-crushers

A01B 29/00

Rollers [N: (rollers for roads E01C)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Rollers for roads	E01C
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A01B 31/00

Drags [N: graders for field cultivators (graders in general E02F)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Graders in general	E02F
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A01B 33/00

Tilling implements with rotary driven tools, [N: e.g. in combination with fertiliser distributors or seeders, with grubbing chains, with sloping axles, with driven discs]

A01B 33/028

[N: of the walk-behind type (walk-type tractors B62D51/04)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Walk-type tractors	B62D 51/04
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A01B 33/16

with special additional arrangements (A01B49/00 takes precedence; for sowing or fertilising A01B49/06)

References relevant to classification in this group

This subclass/group does not cover:

Combined machines	A01B 49/00
Tilling implements with rotary driven tools for sowing or fertilising	A01B 49/06

A01B 35/00

Other machines for working soil [N: not specially adapted for working soil on which crops are growing] (A01B37/00, A01B39/00, A01B77/00 take precedence; [N: hand tools A01B1/00])

References relevant to classification in this group

This subclass/group does not cover:

Devices for loosening soil compacted by wheels or the like	A01B 37/00
Other machines specially adapted for working soil on which crops are	A01B 39/00

growing	
Machines for lifting and treating soil	A01B 77/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hand tools	A01B 1/00
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A01B 35/30

Undercarriages (A01B23/04 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Frames; Drawing-arrangements	A01B 23/04
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A01B 37/00

Devices for loosening soil compacted by wheels or the like

A01B 39/00

Other machines specially adapted for working soil in which crops are growing

A01B 39/14

For working ridges, [N: e.g. for rows of plants and/or furrows]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Making ridges on soil where plants are not growing	A01B 13/02
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A01B 39/16

for working in vineyards, orchards, or the like; [N: Arrangements for preventing damage to vines (ploughs adapted for working in vineyards A01B13/06)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ploughs adapted for working in vineyards	A01B 13/06
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A01B 39/18

For weeding

Definition statement

This subclass/group covers:

Details about mechanical weeding in-between rows of plants are classified, e.g. involving a tool penetrating the soil.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mechanical or chemical weeding	A01M
Mechanical weeding or uprooting of weeds with manual (hand held) means	A01B 1/16

A01B 39/24

Undercarriages (A01B23/04 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Frames; Drawing-arrangements	A01B 23/04
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A01B 39/28

with special additional arrangements (A01B49/00 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Combined machines	A01B 49/00
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A01B 41/00

Thinning machine

A01B 43/00

Gatherers for removing stones, undesirable roots of the like from the soil, e.g. tractor-drawn rakes [N: for harvesting root crops A01D]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For harvesting root crops	A01D
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A01B 45/00

Machines for treating meadows or lawns, [N: e.g. for sports grounds]

A01B 45/04

for cutting sods or turves [N: (machines for lifting and treating soil A01B77/00)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Machines for lifting and treating soil	A01B 77/00
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A01B 47/00

Soil-working with electric potential applied between tools and soil

A01B 49/00

Combined machines (auxiliary devices attached to machines of a different kind, e.g. harrows attached to ploughs, see the relevant groups for the machines)

A01B 49/04

Combinations of soil-working tools with non-soil-working tools, e.g. planting tools [N: seeding machines A01C7/00; harvesters combined with soil-working implements A01D43/12]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Seeding machines	A01C 7/00
Harvesters combined with soil-working implements	A01D 43/12

A01B 51/00

Undercarriages specially adapted for mounting-on various kinds of agricultural tools or apparatus (general vehicle aspects, see the relevant subclass of class B60 or B62)

Informative references

Attention is drawn to the following places, which may be of interest for search:

General vehicle aspects	B60,B62
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A01B 51/026

[N: of the automotive vehicle type, e.g. including driver accommodation (A01B51/023 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Propelled by a motor of the Gantry-type	A01B 51/023
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A01B 59/00

Devices specially adapted for connection between animals or tractors and agricultural machines or implements (A01B63/00 takes precedence; vehicle connections in general B60D; draught assemblies for animal drawn vehicles, in general B62C5/00)

Definition statement

This subclass/group covers:

Specific details of tractor-implement hitches

Details relating to electrical connectors for supplying electrical power to implements

References relevant to classification in this group

This subclass/group does not cover:

Tractors, aspects of the tractor	B62D
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Connection of supply lines	B50D 1/62
Lifting or adjusting devices for agricultural implements	A01B 63/00
Vehicle connections in general	B60D
Draught assemblies for animal drawn vehicles, in general	B62C 5/00

A01B 59/041

preventing or limiting side-play of implements (preventing

overstrain A01B61/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preventing overstrain	A01B 61/00
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A01B 59/043

supported at three points, e.g. by quick-release couplings (A01B59/06 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Devices for machines mounted on tractors	A01B 59/06
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A01B 59/065

[N: for ploughs or like implements (A01B59/061 and subgroups take precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Devices specially adapted for enabling connection or disconnection controlled from the driver's seat	A01B 59/061
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A01B 61/00

Devices for, or parts of, agricultural machines or implements for preventing overstrain (preventing overstrain in vehicle connections in general B60D; preventing overstrain in couplings per se F16D)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preventing overstrain in vehicle	B60D
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connections in general	
Preventing overstrain in couplings per se	F16D

A01B 63/00

Lifting or adjusting devices or arrangements for agricultural machines or implements (lifting mechanisms for the cutter-bar of a mower A01D34/24; adjusting devices for the cutter-bar of a mower A01D34/28; constructional features of lifting devices per se B66F)

Definition statement

This subclass/group covers:

Details concerning the implement or the connection between tractor and implement

References relevant to classification in this group

This subclass/group does not cover:

Hydraulic pressure and supply systems inside the tractor	B62D and B60D
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Lifting mechanisms for the cutter-bar of a mower	A01D 34/24
Adjusting devices for the cutter-bar of a mower	A01D 34/28
Constructional features of lifting devices per se	B66F

A01B 63/118

Mounting implements on power-lift linkages (A01B59/043

takes precedence; preventing or limiting side-play of implements A01B59/041; preventing overstrain A01B61/00)

References relevant to classification in this group

This subclass/group does not cover:

Pulling means arranged on the rear part of the tractor supported at three points	A01B 59/043
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Preventing or limiting side-play of implements	A01B 59/041
Preventing overstrain	A01B 61/00

A01B 67/00

Devices for controlling the tractor motor by resistance of tools (preventing overstrain A01B61/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preventing overstrain	A01B 61/00
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A01B 69/00

Steering of agricultural machines or implements; Guiding agricultural machines or implements on a desired track (vehicle course control in general G05D1/02)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods for planting or sowing in patterns	A01C 21/00
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Precision agriculture	A01B 79/005
Vehicle course control in general	G05D 1/02

A01B 69/001

[N: Steering by means of optical assistance, e.g. television cameras (steering devices for road marking vehicles E01C23/163)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Steering devices for road marking vehicles	E01C 23/163
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A01B 71/00

Construction or arrangement of setting or adjusting mechanisms, of implement or tool drive or of power take-off; Means for protecting parts against dust, or the like; Adapting machine elements to or for agricultural purposes [N: (adjusting mechanisms in general G05G)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Adjusting mechanisms in general	G05G
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A01B 71/04

Bearings of rotating parts, e.g. for soil-working discs ([N: discs A01B15/16, A01B23/06]; bearings in general F16C)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Discs	A01B 15/16 , A01B 23/06
Bearings in general	F16C

A01B 71/08

Means for protecting against dust, or the like, or for cleaning agricultural implements (A01B15/16, A01B19/10 and A01B23/06 take precedence; screening of rotary driven tilling tools A01B33/12; screening of rotary parts in general F16P1/00)

References relevant to classification in this group

This subclass/group does not cover:

Discs; Scrapers for cleaning discs; Sharpening attachments	A01B 15/16
Lifting or cleaning apparatus	A01B 19/10
Discs; Scrapers for cleaning discs; Sharpening attachments	A01B 23/06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Screening of rotary parts in general	F16P 1/00
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A01B 73/00

Means or arrangements to facilitate transportation of agricultural machines or implements, e.g. folding frames to reduce overall width (arrangements of lifting devices for soil working implements A01B63/00; [N: carriers for harvesters or mowers A01D75/002; arrangements or carriers for haymakers A01D78/1007, A01D80/005;]vehicles adapted for load transportation or to transport, to carry or to comprise special loads or objects B60P; motor vehicles, trailers B62D)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements of lifting devices for	A01B 63/00
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soil working implements	
Carriers for harvesters or mowers	A01D 75/002
Arrangements or carriers for haymakers	A01D 78/1007 A01D 80/005
Vehicles adapted for load transportation or to transport, to carry or to comprise special loads or objects	B60P
Motor vehicles, trailers	B62D

Special rules of classification within this group

In the main group ([A01B 73/00](#)) also special details about implement's wheels for transportation are classified. Telescopic frames are also classified here. Documents classified here may have extra classes depending on the type of implement.

A01B 73/005

[N: for endwise transportation, i.e. the direction of transport being substantially perpendicular to the direction of agricultural operation (A01B73/02 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Folding frames	A01B 73/02
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A01B 73/044

[N: the axis being oriented in a longitudinal direction A01B73/042 takes precedence]

References relevant to classification in this group

This subclass/group does not cover:

Folding frames specially adapted for actively driven implements	A01B 73/042
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A01B 73/048

[N: the axis being oriented in transverse direction A01B73/042 takes precedence]

References relevant to classification in this group

This subclass/group does not cover:

Folding frames specially adapted for actively driven implements	A01B 73/042
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A01B 75/00

Carriers for supporting persons when working in the field, e.g. while thinning beet

A01B 76/00

Parts, details or accessories of agricultural machines or implements not provided for in groups A01B51/00 to A01B75/00 [N0509] [C0703]

References relevant to classification in this group

This subclass/group does not cover:

Machines covered in groups	A01B 51/00 - A01B 75/00
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A01B 77/00

Machines for lifting and treating soil (biocides, pest repellants or attractants, plant growth regulators A01N25/00 to A01N65/00; fertilisers C05; soil-conditioning or soil-stabilising materials C09K17/00)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Biocides, pest repellants or attractants, plant growth regulators	A01N 25/00 - A01N 65/00
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Fertilizers	C05
Soil-conditioning or soil-stabilising materials	C09K 17/00

A01B 79/00

Methods of soil working (essentially requiring use of particular machines)

A01B 79/005

[N: Precision agriculture]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Guiding agricultural machines or implements	A01B 69/00
Methods for calculating the fertilizer's needs or for sowing in patterns	A01C 21/00