

A01H

NEW PLANTS OR {NON-TRANSGENIC} PROCESSES FOR OBTAINING THEM; PLANT REPRODUCTION BY TISSUE CULTURE TECHNIQUES

Definition statement

This place covers:

New non-transgenic plants (including multicellular algae, multicellular fungi and lichens), plant varieties, plant tissue culture and breeding methods, methods for altering phenotypes.

Relationships with other classification places

See also [A01G](#); [A01N](#); [C12N](#); [C12Q](#).

References

Informative references

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

Influencing the growth of plants without producing new plants, non-chemically.	A01G 7/00
Influencing the growth of plants without producing new plants, chemically.	A01N 25/00 - A01N 65/00
Unicellular algae	C12N 1/12
Fungal microorganisms	C12N 1/14
Culture media for undifferentiated plant cell or plant tissue culture	C12N 5/0025
Undifferentiated plant cells or tissues per se	C12N 5/04
Nucleic acid hybridisation assays, detecting genotypes	C12Q 1/68

Special rules of classification

[A01H](#) groups and subgroups are globally directed to tissue culture and classical breeding techniques and [C12N 15/82](#) subgroups to transgenics. However the two are not mutually exclusive. For example traits which have been identified and used in transgenics may warrant classification in both areas, as may regeneration methods which are part of a transformation protocol.

Main groups [A01H 5/00](#) - [A01H 17/00](#) are only used for new, non-transgenic, plants (usually varieties)

Particular plant taxons may be cross-classified in the subgroup of [A01H 5/00](#) – [A01H 5/12](#) corresponding to the plant part and cross-classified in the subgroup of [A01H 6/00](#) – [A01H 6/88](#), [A01H 7/00](#) – [A01H 17/00](#) according to plant taxon.

A01H 1/00

Processes for modifying genotypes {; Plants characterised by associated natural traits} ([A01H 4/00](#) takes precedence)

Definition statement

This place covers:

Breeding methods as further defined by the sub-groups.

Plants characterized by non-agronomic quality traits, agronomic yield or resistance aspects.

References

Limiting references

This place does not cover:

Plant reproduction by tissue culture techniques	A01H 4/00
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A01H 1/02

Methods or apparatus for hybridisation; Artificial pollination {; Fertility}

Definition statement

This place covers:

Inter alia creation of hybrids, interspecific crossing, genic (e.g. male or female [A01H 1/022](#) - [A01H 1/024](#)) and nongenetic (e.g. by using chemicals [A01H 1/026](#)) sterility systems; Apparatus for pollination in [A01H 1/027](#).

Relationships with other classification places

See also [C12N 15/02](#); [C12N 5/04](#); [A01N 25/00-A01N 65/00](#)

A01H 1/04

Processes of selection {involving genotypic or phenotypic markers; Methods of using phenotypic markers for selection}

Definition statement

This place covers:

Inter alia marker assisted breeding ; specific allelic combination. Methods of using phenotypic markers for selection, where the trait(s) are outside of the scope of the output or input traits listed in [A01H 1/10](#) – [A01H 1/129](#).

Relationships with other classification places

See also [G01N 33/5097](#)

A01H 1/045

{using molecular markers}

Definition statement

This place covers:

Inter alia marker assisted breeding using molecular markers described by a specific sequence.

Relationships with other classification places

See also [C12Q 1/6895](#).

Special rules of classification

Molecular breeding of transgenic traits is not covered by this subgroup.

A01H 1/06

Processes for producing mutations, e.g. treatment with chemicals or with radiation (specific mutations prepared by genetic engineering on plant cell or plant tissues [C12N 15/00](#) {; process for producing transgenic plants [C12N 15/82](#)})

Definition statement

This place covers:

Inter alia altering repair and recombination systems, either defined by the method or the apparatus.

Relationships with other classification places

See also [C12N 15/01](#)

References

Limiting references

This place does not cover:

Specific mutations prepared by genetic engineering on plant cell or plant tissues	C12N 15/00
Process for producing transgenic plants	C12N 15/82

A01H 1/08

Methods for producing changes in chromosome number

Definition statement

This place covers:

Inter alia creation of haploids, doubled haploids, etc.

Relationships with other classification places

See also [C12N 5/04](#)

A01H 1/09

{Apparatus for producing changes in chromosome number}

Definition statement

This place covers:

Inter alia creation of haploids, doubled haploids characterized by the apparatus.

Relationships with other classification places

See also [C12N 5/04](#).

A01H 1/10

{Processes for modifying non-agronomic quality output traits, e.g. for industrial processing; Value added, non-agronomic traits}

Definition statement

This place covers:

Production of plants with modified non-agronomic traits, for instance traits associated with the production of biomolecules like nicotine or caffeine, or modification of lipid or pigment metabolisms.

A01H 1/12

{Processes for modifying agronomic input traits, e.g. crop yield}

Definition statement

This place covers:

Flower development or morphology, resistance to pathogens, climate, herbicide or hormone-influenced development.

A01H 3/00

**Processes for modifying phenotypes {, e.g. symbiosis with bacteria}
([A01H 4/00](#) takes precedence)**

Definition statement

This place covers:

Inter alia methods for modifying phenotypes as further defined by subclasses.

Relationships with other classification places

See also [A01G 7/00](#); [A01N 25/00](#) - [A01N 65/00](#).

References

Limiting references

This place does not cover:

Plant reproduction by tissue culture techniques	A01H 4/00
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Informative references

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

Influencing the growth of plants without producing new plants, non-chemically.	A01G 7/00
Influencing the growth of plants without producing new plants, chemically.	A01N 25/00 - A01N 65/00

A01H 3/02

by controlling duration, wavelength, intensity, or periodicity of illumination

Relationships with other classification places

See also [C12N 13/00](#)

A01H 4/00

Plant reproduction by tissue culture techniques {; Tissue culture techniques therefor}

Definition statement

This place covers:

Tissue culture techniques, apparatus, culture media for plant reproduction; methods for micropropagation; methods for regeneration to complete plants.

Relationships with other classification places

See also [C12N 5/04](#); [A01G 31/00](#)

A01H 4/001

{Culture apparatus for tissue culture}

Definition statement

This place covers:

Tissue culture apparatus for plant reproduction.

Relationships with other classification places

See also [C12M 1/00](#); [C12M 3/00](#).

A01H 4/002

{Culture media for tissue culture}

Definition statement

This place covers:

Tissue culture media for plant reproduction.

Relationships with other classification places

See also [C12N 5/0025](#), [A01N 25/00](#) - [A01N 65/00](#).

A01H 4/003

{Cutting apparatus specially adapted for tissue culture}

Relationships with other classification places

See also [C12M 1/00](#); [C12M 3/00](#).

A01H 4/005

{Methods for micropropagation; Vegetative plant propagation using cell or tissue culture techniques}

Relationships with other classification places

See also [C12N 5/04](#).

A01H 4/006

{Encapsulated embryos for plant reproduction, e.g. artificial seeds}

Relationships with other classification places

See also [A01C 1/06](#)

A01H 4/008

{Methods for regeneration to complete plants}

Relationships with other classification places

See also [C12N 5/04](#)

A01H 5/00

Angiosperms, i.e. flowering plants, characterised by their plant parts;
Angiosperms characterised otherwise than by their botanic taxonomy

Definition statement

This place covers:

New non-transgenic angiosperms further sub-divided according to their products

A01H 7/00

Gymnosperms, e.g. conifers

Definition statement

This place covers:

New non-transgenic gymnosperms

A01H 9/00

Pteridophytes, e.g. ferns, club-mosses, horse-tails

Definition statement

This place covers:

New non-transgenic pteridophytes

A01H 11/00

Bryophytes, e.g. mosses, liverworts

Definition statement

This place covers:

New non-transgenic bryophytes

A01H 13/00

Algae (unicellular algae [C12N 1/12](#))

Definition statement

This place covers:

New non-transgenic algae

Relationships with other classification places

See also [A01G 33/00](#); [C12N 5/04](#)

Special rules of classification

Looping references between [A01H 13/00](#) and [C12N 1/12](#) have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as follows:

From the perspective of [A01H 13/00](#), the reference [C12N 1/12](#) is limiting. From the perspective of [C12N 1/12](#), [A01H 13/00](#) is application oriented.

A01H 15/00

Fungi; Lichens (fungal microorganisms [C12N 1/14](#))

Definition statement

This place covers:

New non-transgenic fungi or lichens

Special rules of classification

Looping references between [A01H 15/00](#) and [C12N 1/14](#) have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as follows:

From the perspective of [A01H 15/00](#), the reference [C12N 1/14](#) is limiting. From the perspective of [C12N 1/14](#), [A01H 15/00](#) is application oriented.

A01H 17/00

Symbiotic or parasitic combinations including one or more new plants, e.g. mycorrhiza (lichens [A01H 15/00](#))

Definition statement

This place covers:

New non-transgenic symbiotic or parasitic combinations including one or more new plants