

A23K

FODDER

Definition statement

This place covers:

Feeding-stuffs that are specially adapted, processed or formulated for non-human animals.

Processes that are specially adapted for production of such animal feeding-stuffs.

Processes that are specially adapted for preservation of materials (e.g. grass or roots) in order to produce such animal feeding-stuffs.

Relationships with other classification places

Animal feeding-stuffs

This subclass only covers feeding-stuffs that are disclosed as being specially adapted, processed or formulated for non-human animals. Foods or foodstuffs that are of unspecified use or specially adapted for human beings are covered by other subclasses for foodstuffs, for example, the other subclasses of class [A23](#).

Production of animal feeding-stuffs

Processes for production of foods or foodstuffs that are of unspecified use, or specially adapted for human beings, are covered by the relevant subclasses therefor.

Apparatus that is specially adapted for production of animal feeding-stuffs is covered by group [A23N 17/00](#).

Mechanical aspects that are of general utility are covered by other subclasses.

Preservation of materials in order to produce animal feeding-stuffs

This subclass only covers processes for preservation that are specially adapted for production of animal feeding-stuffs. Preservation of foods or food-stuffs that are of unspecified use or specially adapted for human beings are covered by the relevant subclasses therefor, for example, subclass [A23B](#) (e.g. group [A23B 2/00](#)).

Mechanical aspects of processes for preservation of materials in order to produce animal feeding-stuffs are classified in other subclasses, for example, in subclasses [A01F](#) (e.g. group [A01F 25/00](#)) and [F26B](#).

Haymaking

Haymakers, i.e. apparatus for working on mown forage crops lying on the ground with the intention to make hay, are classified in groups [A01D 76/00](#) - [A01D 84/00](#). Haymakers may include means for mechanical treatment of mown crops in the field, for example, for crop-conditioning.

References

Informative references

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

Storing agricultural or horticultural crops (e.g. in silos)	A01F 25/00
Apparatus specially adapted for cutting or disintegrating straw, hay or like harvested products of plant origin	A01F 29/00
Manufacture of dairy products	A01J
Animal husbandry; Care of birds, fishes or insects	A01K

Preparation of bait for angling	A01K 97/04
Preservation of plants in general	A01N 3/00
Biocides, pest repellents or pest attractants	A01N 25/00
Machines or equipment for making or processing doughs	A21C
Treating of flour or dough	A21D
Processing meat, poultry or fish	A22C
Preservation of foods, foodstuffs or non-alcoholic beverages, in general	A23B
Dairy products; Making dairy products	A23C
Edible oils or fats	A23D
Protein compositions for foodstuffs; Working-up proteins for foodstuffs; Phosphatide compositions for foodstuffs	A23J
Preparation or treatment of foods or foodstuffs in general	A23L 5/00
Machines or apparatus for treating harvested fruit or vegetables in bulk, not otherwise provided for	A23N 1/00 - A23N 15/00
Apparatus specially adapted for preparing animal feeding-stuffs	A23N 17/00
Shaping or working of foodstuffs	A23P
Veterinary methods	A61D
Medicinal preparations	A61K
Mixing in general	B01F
Granulating materials	B01J 2/00
Disintegrating in general	B02C
Cutting in general	B26D
Presses in general, e.g. for making briquettes	B30B
Polysaccharides; Derivatives thereof	C08B
Derivatives of natural macromolecular compounds	C08H
Producing animal or vegetable oils, fats, fatty substances or waxes	C11B
Preparation of fats, oils or fatty acids	C11C 1/00
Microorganisms or enzymes; Compositions thereof	C12N
Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition	C12P
Sugar industry	C13
Drying solid materials	F26B

Synonyms and Keywords

In patent documents, the word/expression in the first column is often used instead of the word/expression in the second column, which is used in the classification scheme of this place:

feed, feedstuff	feeding-stuffs
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A23K 10/00**Animal feeding-stuffs****Definition statement***This place covers:*

Feedstuffs and processes for production in general.

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

Detoxicating or removing bitter tastes from seeds, e.g. lupin seeds for fodder or food	A23L 11/30
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A23K 10/10**obtained by microbiological or biochemical processes (using chemicals or microorganisms for ensilaging of green fodder [A23K 30/15](#))****Definition statement***This place covers:*

Non-specified microbiological processes for fodder or non-specified addition of microbes in general.

A23K 10/12**by fermentation of natural products, e.g. of vegetable material, animal waste material or biomass****Definition statement***This place covers:*

Use of microorganisms to produce fodder ingredients or fodders (biomass) and the ingredients of fodders per se.

A23K 10/14**Pretreatment of feeding-stuffs with enzymes****Definition statement***This place covers:*

Treating fodder by addition of enzymes (in general and specific) for particular effects.

A23K 10/16**Addition of microorganisms or extracts thereof, e.g. single-cell proteins, to feeding-stuff compositions ([A23K 10/12](#) takes precedence)****Definition statement***This place covers:*

Methods of adding microbes such as probiotics to fodders and the fodders per se.

A23K 10/18**of live microorganisms****Definition statement**

This place covers:

Methods of adding live microbes such as probiotics to fodders and the fodders per se.

A23K 10/20

from material of animal origin (obtained by microbiological or biochemical processes [A23K 10/10](#))

Definition statement

This place covers:

Production of fodder from animal or waste material in general, and fodders containing same as a significant ingredient.

A23K 10/22**from fish****Definition statement**

This place covers:

Production of fodder from fish (including shellfish, crustaceans), and fodders containing same as a significant ingredient.

A23K 10/24**from blood****Definition statement**

This place covers:

Production of fodder from blood or blood products and fodder containing these as a significant ingredient.

References**Informative references**

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

Proteins from blood	A23J 1/06
Medicinal preparations containing blood	A61K 35/14

A23K 10/26

from waste material, e.g. feathers, bones or skin ([A23K 10/24](#) takes precedence)

Definition statement

This place covers:

Production of fodder from animal (including fish, etc.) waste material, and fodders containing same as a significant ingredient.

A23K 10/28

from waste dairy products

Definition statement

This place covers:

Production of fodder from dairy wastes and fodder containing these as a significant ingredient.

A23K 10/30

from material of plant origin, e.g. roots, seeds or hay; from material of fungal origin, e.g. mushrooms (obtained by microbiological or biochemical processes, e.g. using yeasts or enzymes, [A23K 10/10](#))

Definition statement

This place covers:

Production of fodder from vegetable material in general (including plant extracts) and fodders containing same as a significant ingredient.

References**Limiting references**

This place does not cover:

Animal feeding-stuffs obtained by microbiological or biochemical processes	A23K 10/10
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Informative references

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

Preservation of food, foodstuffs or non-alcoholic beverages	A23B
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A23K 10/32

from hydrolysates of wood or straw

Definition statement

This place covers:

Production of fodder from chemical or enzymatic hydrolysates of wood or straw (including lignaceous or cellulosic) material, and fodders containing same as a significant ingredient.

A23K 10/33**from molasses****Definition statement***This place covers:*

Production of fodder from molasses and fodder containing molasses as a significant ingredient.

A23K 10/35**from potatoes****Definition statement***This place covers:*

Production of fodder from potatoes (including by-products), and fodders containing same as a significant ingredient.

A23K 10/37**from waste material (from hydrolysates of wood or straw [A23K 10/32](#); from molasses [A23K 10/33](#))****Definition statement***This place covers:*

Production of fodder from vegetable waste material, and fodders containing same as a significant ingredient.

A23K 10/38**from distillers' or brewers' waste****Definition statement***This place covers:*

Production of fodder from waste products of brewing and distilling (e.g. solubles) and fodder containing same as a significant ingredient.

A23K 10/40**Mineral licks, e.g. salt blocks****Definition statement***This place covers:*

Block of salt and other minerals for livestock to lick.

A23K 20/00

Accessory food factors for animal feeding-stuffs

Definition statement

This place covers:

Animal feed or fodder supplemented with additives which may, for example, enhance the nutritional value, digestibility or appeal of the feed, may effect weight-gain of the animal, or the appearance of the flesh or meat of the animal, etc.

Specific additives being classified in the subgroups, e.g. vitamins as fodder additives are classified in [A23K 20/174](#), sugars as fodder additives are classified in [A23K 20/163](#).

A23K 20/10

Organic substances

Definition statement

This place covers:

Addition of organic substances of undefined composition, including mixtures thereof.

A23K 20/105

Aliphatic or alicyclic compounds

Definition statement

This place covers:

Addition of non-aromatic carbon compounds (not including fatty, amino, or heterocyclic, etc. compounds covered by other subclasses).

A23K 20/111

Aromatic compounds

Definition statement

This place covers:

Addition of non-heterocyclic compounds containing at least one benzene ring.

A23K 20/116

Heterocyclic compounds

Definition statement

This place covers:

Addition of heterocyclic compounds in general.

A23K 20/121

containing oxygen or sulfur as hetero atom

Definition statement

This place covers:

Addition of saturated or unsaturated oxo- or sulfo- heterocycles (e.g. oxirane, oxetane, etc., and thiirane, thietane, etc., compounds).

A23K 20/126

Lactones

Definition statement

This place covers:

Addition of lactone type cyclic esters.

A23K 20/132

containing only one nitrogen as hetero atom

Definition statement

This place covers:

Addition of saturated or unsaturated single nitrogen containing heterocycles (e.g. aziridine, pyridine, etc.).

A23K 20/137

containing two hetero atoms, of which at least one is nitrogen

Definition statement

This place covers:

Addition of saturated or unsaturated heterocycles, with more than one hetero atom and containing at least one nitrogen atom (e.g. oxazepines, thiazepines, pyridazine).

A23K 20/142

Amino acids; Derivatives thereof

Definition statement

This place covers:

Addition of amino acids (including esters, salts, etc.).

A23K 20/147

Polymeric derivatives, e.g. peptides or proteins

Definition statement

This place covers:

Addition of peptide and worked up protein material, including proteolyzates.

A23K 20/153**Nucleic acids; Hydrolysis products or derivatives thereof****Definition statement**

This place covers:

Addition of nucleic acids and fragments (DNA, RNA, etc.).

A23K 20/158**Fatty acids; Fats; Products containing oils or fats****Definition statement**

This place covers:

Addition of oils, fats, fatty acids, fatty materials including waxes.

A23K 20/163**Sugars; Polysaccharides****Definition statement**

This place covers:

Addition of saccharides including simple sugars and starches as well as cellulosic materials.

A23K 20/168**Steroids****Definition statement**

This place covers:

Addition of steroids (e.g. cortisone, prednisolone, etc.) and derivatives.

A23K 20/174**Vitamins****Definition statement**

This place covers:

Animal feed or fodder supplemented with additives which may, for example, enhance the nutritional value, digestibility or appeal of the feed, may effect weight-gain of the animal, or the appearance of the flesh or meat of the animal, etc.

A23K 20/179**Colouring agents, e.g. pigmenting or dyeing agents****Definition statement**

This place covers:

Addition of colouring agent to the fodder resulting in, for example, brightly coloured food, e.g. to attract birds, or resulting in enhanced colour of the flesh or meat, e.g. pink colouring to salmon flesh.

A23K 20/184**Hormones****Definition statement**

This place covers:

Addition of hormones (e.g., growth hormone, oxytocin, etc.) and derivatives.

A23K 20/189**Enzymes****Definition statement**

This place covers:

Addition of enzymes (in general and specific).

A23K 20/195**Antibiotics****Definition statement**

This place covers:

Addition of antibiotics per se (not including probiotics - see [A23K 10/16](#)).

A23K 20/20**Inorganic substances, e.g. oligoelements****Definition statement**

This place covers:

Addition of inorganic materials, e.g. metals, salts, gases, etc.

Special rules of classification

Oligoelements are classified in the group [A23K 20/30](#)

A23K 20/22**Compounds of alkali metals****Definition statement**

This place covers:

Addition of group 1 elements (Li, Na, K, etc.).

A23K 20/24**Compounds of alkaline earth metals, e.g. magnesium****Definition statement**

This place covers:

Addition of group 2 elements (Be, Mg, Ca, etc.).

A23K 20/26**Compounds containing phosphorus****Definition statement**

This place covers:

Addition of organic and inorganic P compounds (e.g. pyrophosphates, etc.).

A23K 20/28**Silicates, e.g. perlites, zeolites or bentonites****Definition statement**

This place covers:

Addition of Si compounds (including earths, clays, etc.).

A23K 20/30**{Oligoelements}****Definition statement**

This place covers:

Addition of trace elements (e.g. Fe, Cu, Mn, Zn, Se, I., etc.).

A23K 30/00**Processes specially adapted for preservation of materials in order to produce animal feeding-stuffs****Definition statement**

This place covers:

Feedstuffs characterized by preservation method and the feedstuffs per se.

A23K 30/10**of green fodder****Definition statement**

This place covers:

Feedstuffs characterized by preservation of green material (grasses, lucerne, etc.) and the feedstuffs per se.

References**Informative references**

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

Mechanical aspects of methods specially adapted for storing agricultural or horticultural crops	A01F 25/00
Silos	E04H 7/22

A23K 30/12**Dehydration****Definition statement**

This place covers:

Feedstuffs characterized by dehydration preservation of green material (grasses, lucerne, etc.) and the feedstuffs per se.

A23K 30/15**using chemicals or microorganisms for ensilaging****Definition statement**

This place covers:

Feedstuffs characterized by addition of chemicals (or biochemicals) to produce silage and the silage per se.

A23K 30/18**using microorganisms or enzymes****Definition statement**

This place covers:

Feedstuffs characterized by addition of enzymes and/or microbes to produce silage and the silage per se.

A23K 30/20**Dehydration (of green fodder [A23K 30/12](#))****Definition statement**

This place covers:

Feedstuffs characterized by dehydration preservation and the feedstuffs per se.

A23K 40/00**Shaping or working-up of animal feeding-stuffs****Definition statement**

This place covers:

Processes for producing fodders not covered in subgroups, as well as fodders resulting from processes.

A23K 40/10**by agglomeration; by granulation, e.g. making powders****Definition statement***This place covers:*

Processes for producing fodders by agglomeration, granulation, powdering, as well as granular, powdered fodders resulting from processes.

A23K 40/20**by moulding, e.g. making cakes or briquettes****Definition statement***This place covers:*

Processes for producing fodders by molding, pressing; as molded, compressed or pressed fodders resulting from such processes.

A23K 40/25**by extrusion****Definition statement***This place covers:*

Processes for producing fodders by extrusions as well as extruded fodders resulting from such processes.

A23K 40/30**by encapsulating; by coating****Definition statement***This place covers:*

- Processes for producing fodders by encapsulating, coating, covering
- Coated, covered, or enveloped fodders resulting from these processes

A23K 40/35**Making capsules specially adapted for ruminants****Definition statement***This place covers:*

Processes for making coatings designed to bypass the rumen and products per se.

A23K 50/00**Feeding-stuffs specially adapted for particular animals****Definition statement***This place covers:*

Feeds adapted for specific animals in general.

References

Informative references

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

Milk Substitutes	A23C 11/00
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A23K 50/10

for ruminants

Definition statement

This place covers:

Feeds for ruminant animals (e.g. cows, goats, sheep, etc.).

A23K 50/15

containing substances which are metabolically converted to proteins, e.g. ammonium salts or urea

Definition statement

This place covers:

Feeds for ruminants which contain nitrogenous protein precursors.

A23K 50/20

for horses

Definition statement

This place covers:

Feeds for equine animals (e.g. horses, donkeys, zebra).

A23K 50/30

for swines

Definition statement

This place covers:

Feeds for suidae (e.g. pig, hog, boar, etc.).

A23K 50/40

for carnivorous animals, e.g. cats or dogs

Definition statement

This place covers:

Feeds for carnivorous animals in general (canines, felines, mink, etc.).

A23K 50/42

Dry feed

Definition statement

This place covers:

0-15% H₂O.

A23K 50/45

Semi-moist feed

Definition statement

This place covers:

15-50% H₂O.

A23K 50/48

Moist feed

Definition statement

This place covers:

50-100% H₂O.

A23K 50/50

for rodents

Definition statement

This place covers:

Feeds for rodents (e.g. mice, rats, hamsters, etc.).

A23K 50/60

for weanlings

Definition statement

This place covers:

Feeds for young animals in general.

A23K 50/70

for birds

Definition statement

This place covers:

Feeds for avian animals in general (e.g. pigeons, wild birds, etc.).

A23K 50/75

for poultry

Definition statement

This place covers:

Feeds for domesticated farmed avians (e.g. chicken, turkey, geese, duck, etc.).

A23K 50/80

for aquatic animals, e.g. fish, crustaceans or molluscs

Definition statement

This place covers:

Feeds used in aquaculture in general (including shellfish and marine mammals).

A23K 50/90

for insects, e.g. bees or silkworms

Definition statement

This place covers:

Feeds for insects (e.g. honeybees, flies, etc.).