

ECLA EUROPEAN CLASSIFICATION

- A23N** **MACHINES OR APPARATUS FOR TREATING HARVESTED FRUIT, VEGETABLES OR FLOWER BULBS IN BULK, NOT OTHERWISE PROVIDED FOR; PEELING VEGETABLES OR FRUIT IN BULK; APPARATUS FOR PREPARING ANIMAL FEEDING- STUFFS** (machines for cutting straw or fodder [A01F29/00](#); disintegrating, e.g. shredding, [B02C](#); severing, e.g. cutting, splitting, slicing [B26B](#), [B26D](#))
- A23N1/00** **Machines or apparatus for extracting juice** (preparation of non-alcoholic beverages, e.g. by adding ingredients to fruit or vegetable juices, [A23L2/00](#); apparatus for making beverages [A47J31/00](#) [N: centrifuges [B04B](#)]; extracting presses [B30B](#))
- A23N1/00B . [N: especially for citrus fruits]
- A23N1/00F . [N: by electroplasmolysis (preserving of fruit or vegetables by electroplasmolytic treatment [A23B7/015](#))]
- A23N1/02 . combined with disintegrating or cutting
- A23N3/00** **Machines for coring or stoning fruit, characterised by their feeding device** ([A23N4/00](#) takes precedence; [N: kitchen devices for stoning fruit [A47J25/00](#)])
- A23N3/02 . with feeder-drums
- A23N3/04 . with endless feeder-belts
- A23N3/06 . with feeder-tables
- A23N4/00** **Machines for stoning fruit or removing seed-containing sections from fruit, characterised by their stoning or removing device** (for peeling fruit and removing seed-containing sections [A23N7/08](#); domestic devices for stoning fruit [A47J23/00](#), for coring fruit [A47J25/00](#))
- A23N4/02 . for stoning fruit
- A23N4/04 . . for peaches, plums, apricots or the like
- A23N4/06 . . for cherries or the like ([A23N4/04](#) takes precedence)
- A23N4/08 . . for dates, olives or the like oblong fruits
- A23N4/08B . . . [N: for olives]
- A23N4/10 . . for fruit with very small pips, e.g. raisins
- A23N4/12 . for coring fruit [N: (for household appliances [B26B](#))]
- A23N4/14 . . for apples, pears or the like
- A23N4/16 . . for tomatoes or the like
- A23N4/18 . . for citrus fruits
- A23N4/20 . . for pineapples

- A23N4/22 . for both splitting and stoning
- A23N4/24 . for removing seed-containing sections from cut fruit [N: (material in [A23N4/12](#))]
- A23N5/00** **Machines for hulling, husking or cracking nuts** [N: (household nutcrackers [A47J43/26](#))]
- A23N5/00A . [N: for skinning nut kernels]
- A23N5/00B . [N: for palmnuts ([A23N5/00A](#) and [A23N5/08](#) take precedence)]
- A23N5/00C . [N: for chestnuts ([A23N5/00A](#) and [A23N5/08](#) take precedence)]
- A23N5/00D . [N: for almonds ([A23N5/00A](#) and [A23N5/08](#) take precedence)]
- A23N5/01 . for peanuts
- A23N5/03 . for coconuts ([A23N5/08](#) takes precedence)
- A23N5/08 . for removing fleshy or fibrous hulls of nuts (for peanuts [A23N5/01](#))
- A23N7/00** **Peeling vegetables or fruit** (devices for skinning onions [A23N15/08](#); [N: peeling by non-mechanical means [A23P](#)]; peeling machines of the household type [A47J17/00](#))
- A23N7/00A . [N: Peeling pineapples ([A23N7/00B](#) and [A23N7/01](#) take precedence)]
- A23N7/00B . [N: Peeling with steam]
- A23N7/01 . using chemical substances, e.g.lye
- A23N7/02 . Peeling potatoes, apples or similarly shaped vegetables or fruit ([N: [A23N7/00B](#) and] [A23N7/01](#) take precedence)
- A23N7/02B . . [N: one by one]
- A23N7/02B2 . . . [N: Peeling machines therefor with rotary fruit holding spindles and fixed or movable peeler blades]
- A23N7/04 . Peeling asparagus ([N: [A23N7/00B](#) and] [A23N7/01](#) take precedence)
- A23N7/08 . for peeling fruit and removing seed-containing sections
- A23N7/10 . Driving mechanisms
- A23N11/00** **Removing pith from stems**
- A23N12/00** **Machines for cleaning, blanching, drying or roasting fruits or vegetables, e.g. coffee, cocoa, nuts** (methods for treating, e.g. roasting, coffee or cocoa, [A23F](#), [A23G](#); cleaning, e.g. washing, or drying grain [B02B1/00](#); separating solids from solids for cleaning [B07B](#); cleaning in general [B08B](#); heating devices per se, see the relevant classes, e.g. [F24](#); drying machines in general [F26B](#))

- A23N12/00A . [N: for dry-cleaning]
- A23N12/02 . for washing or blanching ([A23N12/06](#) takes precedence; blanching methods [A23B7/06](#))
- A23N12/02A . . [N: for washing potatoes, apples or similarly shaped vegetables or fruit (washing grain [B02B1/04](#))]
- A23N12/02A1 . . . [N: Stone-gatherers or cleaning devices for the washing machines]
- A23N12/04 . . for blanching
- A23N12/06 . for washing or blanching, combined with subsequent drying
- A23N12/08 . for drying or roasting ([A23N12/06](#) takes precedence)
- A23N12/08A . . [N: with stirring, vibrating or grinding devices]
- A23N12/08C . . [N: with centrifuging devices]
- A23N12/10 . . Rotary roasters
- A23N12/12 . . Auxiliary devices for roasting machines
- A23N12/12B . . . [N: Accessories or details]

- A23N15/00** **Machines or apparatus for other treatment of fruits or vegetables for human purposes; Machines or apparatus for topping or skinning flower bulbs** [N: (treatment of coffee, other than drying or roasting [A23E](#); treatment of cocoa [A23G1/02](#))]
- A23N15/00A . [N: for trimming artichokes]
- A23N15/00B . [N: for trimming cauliflowers, broccoli or cabbages]
- A23N15/00C . [N: for pricking peas or beans]
- A23N15/01 . for stripping Brussels` sprouts from stalks
- A23N15/02 . for stemming, piercing, or stripping fruit [N: (for household appliances [A47J21/00](#))]; Removing sprouts of potatoes
- A23N15/02B . . [N: for stemming grapes]
- A23N15/04 . Devices for topping fruit or vegetables (topping onions [A23N15/08](#))
- A23N15/04A . . [N: Devices for topping mushrooms]
- A23N15/06 . Devices for other treatment of fruit e.g. marking, maturing, polishing
- A23N15/08 . Devices for topping or skinning onions or flower bulbs
- A23N15/10 . for shelling peas or beans
- A23N15/12 . for snipping or stringing beans

- A23N17/00** **Apparatus specially adapted for preparing animal feeding-stuffs** [N: (automatic devices for the distribution of liquid fodder for stock or game [A01K5/02C](#); sucking apparatus for young stock [A01K9/00](#))]

- A23N17/00A . [N: by treating with chemicals, e.g. ammoniac, sodium hydroxide (processes [A23K1/12](#))]
- A23N17/00B . [N: for treating of meat, fish waste or the like]
- A23N17/00C . [N: for treating by application of heat, e.g. by means of potato cookers (drying [F26B](#))]
- A23N17/00D . [N: for shaping by moulding, extrusion, pressing, e.g. pellet-mills (processes [A23K1/00B](#); presses in general [B30B](#))]
- A23N17/00E . [N: for mixing feeding-stuff components]
- A23N17/00F . [N: for treating of silage, e.g. upgrading with water]
- A23N17/02 . Fodder mashers (household implements for mashing potatoes or other foodstuffs [A47J19/04](#))