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- Search 1: SFT=(node and bar and spacial and modular) (Results 34)
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Search 5: SFT=(irrigatio* and pot and plant*) and IC=(a01g) (Results 2648)
Search 6: SFT=(irrigatio* and pot and plant* and structur*) and IC=(a01g) (Results 1170)
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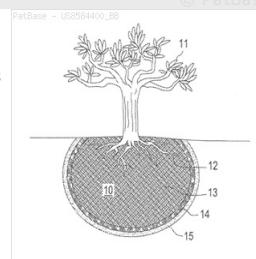
1) Family number: 30113286 (US2002090453A)

HIGHLY ABSORBENT PRODUCTS AND PROCESS OF MAKING SUCH PRODUCTS

Abstract: Source: US2002090453A The invention provides processes for coating the surface of polymeric materials such as a sheet, film, foam, fiber, etc., with a curable liquid resin or solution of curable resin, then in one embodiment, stably attaching a superabsorbent polymeric powder to such resin, and then curing the resin to form a coated superabsorbent product. Other process embodiments and resulting products are included in the invention. The coated product has reduced particle agglomeration and particle loss due to the curing step. The product can be interposed between sheets to form disposable absorbent products such as diapers, bandages, etc. or used on one side to form cleaning products.

Probable Assignee: SYNERGISTIC VENTURES INC

Earliest Publication Date: 20020711



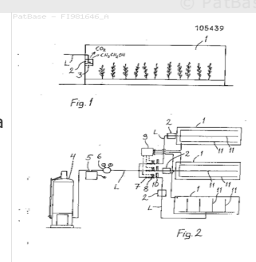
2) Family number: 14068347 (FI981646A)

MENETELMAE, LAITTEISTO JA AINE KASVIEN KASVUN PARANTAMISEKSI FOERFARANDE, ANLAEGGNING OCH AEMNE FOER FOERBAETTRING AV VAEXTERNAS VAEXT

Abstract: Source: FI981646A In a process for improving plant growth, an organic compound is given for above-ground parts of plants in a closed space 1, such as a greenhouse, by evaporating an organic carbon compound to a suitable concentration within the closed space 1. The compound is fed from a reservoir 2, 4 containing the compound by means of a gas flow brought from a dedicated gas source located separate from the air of the closed space 1.

Probable Assignee: KEKKILAE OYJ

Earliest Publication Date: 20000121



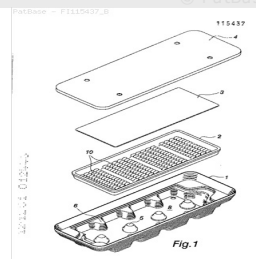
3) Family number: 15972162 (FI20012443A)

KASVATUSALUSTA ERILAISTEN KASVIEN KASVATTAMISEKSI SIEMENISTAE VAEXTUNDERLAG FOER ATT UR FROEN OLIIKA VAEXTER

Abstract: Source: FI115437B Keksinnöen kohteena on kasvatusalusta erilaisten kasvien, erityisesti ravintokasvien kasvattamiseksi siemenistae. Keksinnöen mukaiseen kasvatusalustaan kuuluu biohajoava siemenlevy (2, 7; 22, 27), jossa on siemenet (10) vastaanottava tila. Mainitussa vastaanottotilassa on biohajoava pohjaosa (7; 27), joka sallii siemenien (10) juurien kasvamisen sen laeppi. Kasvatusalustaan kuuluu lisaeksi paeaallysosa (3; 23), jonka ylaepinta on tehty vettae laepaisemaettoemaeksi, ja joka paeaallysosa (3) on jaerjestetty sijoitettavaksi vastaanottotilan ylaeosaan siten, ettae se pitaaee vastaanottotilaan sijoitetut siemenet paikoillaan. Siemenien itaemisen vaatima kasvu on jaerjestetty tehtaevaaksi siemenlevyn pohjaosaan (7, 27) vaelityksellae. Uppfinningen avser ett vaextunderlag foer odling av olika vaexter, saerskilt naeringsvaext, fran froen. Vaextunderlaget enligt uppfinningen uppvisar en biodegraderbar froeplatta (2, 7; 22, 27) med ett froena (10) mottagande utrymme. Naemnda mottagningsutrymme uppvisar en biodegraderbar bottendel (7; 27), som goer det moejligt foer roetterna till froena (10) att vaexa igenom den. Vaextunderlaget uppvisar daertill en oeverdel (3; 23), vars oever sida aer gjord vattenogentomtraenglig, och vilken oeverdel (3) aer anordnad att placeras i oever delen av mottagarutrymmet sa, att den haller de i mottagarutrymmet placerade froena pa plats. Bevattningen som froenas groning erfordrar har anordnats att utfoeras via froeplattans bottendel (7, 27). Keksinnöen is in the culture medium of various plants, particularly food crops to increase seedling. Culture medium according to Keksinnöen a biodegradable seed disc (2, 7; 22, 27), which is the seed (10) receiving area. Said receiving space is a biodegradable base portion (7; 27), which allows the seeds (10) roots of the growing laeppi. The medium is lisaeksi paeaallysosa (3; 23), which is made ylaepinta vettae laepaisemaettoemaeksi, and paeaallysosa (3) is placed in the receiving space jaerjestetty ylaeosaan so it ettaa pitaaee receiving space disposed seeds in place. The seed required for irrigation is itaemisen jaerjestetty tehtaevaaksi seed disk base portion (7, 27) vaelityksellae.

Probable Assignee: HEIKKINEN MATTI

Earliest Publication Date: 20030613



4) Family number: 28537842 (US2003089152A)

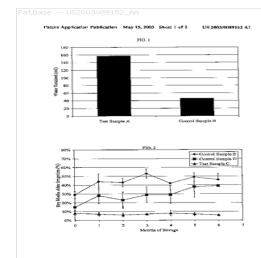
PLANT GROWTH MEDIA AND PROCESSES FOR PRODUCTION THEREOF AND COMPOSITIONS FOR

USE THEREIN

Abstract: Source: US2003089152A A pre-mix composition is disclosed for use in treating a **plant** growth medium to promote improved wetting and re-wetting thereof comprising a mixture of coconut coir pith and a horticulturally acceptable surfactant. A process for treating a **plant** growth medium utilizing such pre-mix composition is also disclosed as well as the treated **plant** growth medium.

Probable Assignee: OMS INVESTMENTS INC

Earliest Publication Date: 20030515



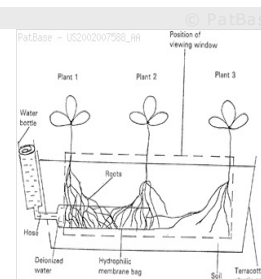
5) Family number: 30084409 (US2002007588A)

METHOD FOR MODIFYING ROOT GROWTH

Abstract: Source: US2002007588A A method of modifying the growth of **plant** roots is provided in which the roots are grown in proximity to a membrane from which water is released during the growth of the roots, wherein the membrane is a hydrophobic porous membrane or a hydrophilic non-porous membrane. The method may also be used to collect materials exuded from **plant** roots by growing the **plant** roots in a growing medium that is surrounded by a membrane such that moisture is released into the growing medium from the membrane whilst materials exuded from the **plant** roots are retained within the growing medium by the membrane, wherein the membrane is a hydrophobic porous membrane or a hydrophilic non-porous membrane.

Probable Assignee: DESIGN TECHNOLOGY AND INNOVATION LTD

Earliest Publication Date: 20010215



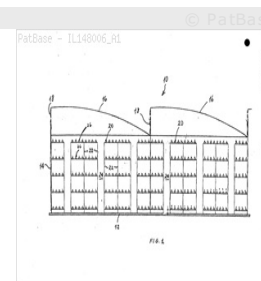
6) Family number: 30254411 (IL148006A1)

AEROPONIC **PLANT** GROWTH APPARATUS AND METHOD

Abstract: Source: IL148006A1 1. A system for aeroponic growing of **plants** in greenhouses comprising: a) a translucent housing comprising light permeable walls and roof with insect impervious screening providing substantially uniform, diffused light throughout the greenhouse; b) a climate control system for said housing including control means for temperature, humidity, oxygen and carbon dioxide concentration and circulation, and day/night light radiation; c) stacked horizontal root growing chambers spaced apart from one another horizontally and vertically on support frames along the length or width of the greenhouse with passages provided between stacks at predetermined intervals; and d) a nutrient **irrigation** system; characterized in that: the root growing chambers comprise opaque troughs with opaque covers, the covers having spaced apart apertures in a single row along their center axis for receiving **plant** culture plugs, the chamber terminating at one end in a drain pipe; the nutrient **irrigation** system comprises: drip **irrigation** pipes extending along the covers with drippers spaced to coincide with the apertures in the covers; a drain pipe connecting the growing chambers to a drainage tank; a nutrient solution storage/drainage tank for receiving and storing nutrient solution for circulating through the **irrigation** pipes and for receiving excess nutrient solution from the drain pipes; containers for acid, fertilizer and micro-nutrients for replenishing drained **irrigation** solution; photometers for analyzing the concentration of nutrients in the storage/drainage tank; controller means for monitoring and adjusting the pH, electrical conductivity, fertilizer and micro-nutrient content in drained nutrient solution in the tank; and pumping means and filtering means to recycle adjusted and filtered nutrient solution to the drip **irrigation** pipes.

Probable Assignee: SASSON SHLOMO

Earliest Publication Date: 20030917



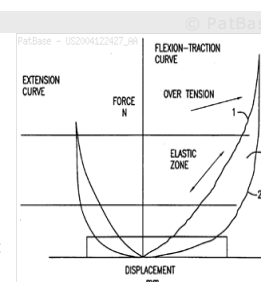
7) Family number: 30497399 (US2004122427A)

APPARATUS AND METHOD FOR RESTORING BIOMECHANICAL FUNCTION TO A MOTION SEGMENT UNIT OF THE SPINE

Abstract: Source: US2004122427A A method of restoring stability to an unstable motion segment unit of the spine in which pre and post decompression measurements of at least one characteristic of the targeted motion segment unit, or combination of motion segment units, are compared with a data bank of measurements of the same characteristics of known motion segment units, then matched with suitable implantable spinal assist device to identify a suitable device for correcting instability of the targeted motion segment unit. The implant selected for restabilization of any one patient's spine joint will be in part, a function of an objective, intraoperative stiffness measurement, which in turn, is a function of the integrity of a patient's surviving spine joint tissues at this time-post decompression.

Probable Assignee: BARTHON MAYER BATYA

Earliest Publication Date: 20030918



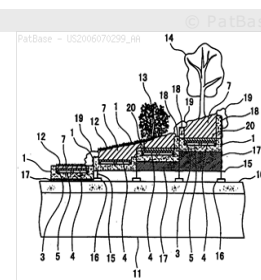
8) Family number: 30611034 (US2006070299A)

GREENING SYSTEM

Abstract: Source: US2006070299A A greening system is disclosed for enabling **plants**/vegetation to grow only with natural rainfall, without any particular **irrigation** facilities, enabling a full-blown garden to be constructed on building rooftops, minimizing the applicable loads on the building, and free from the risk of leakage. **Planting** container 1 comprises box 2 with stickers 3 to carry perforated partition panel 4. The lower half of the container is constituted as water storage 5, and drain holes 6 are opened on sides of the container. Soil layer 7 placed on partition panel 4 is formed of light woody soil-based on charcoal 9 and humus timber chips for absorbing moisture transported from the water 8 stored in water storage 5 by evaporation or difference in humidity, to have a large water capacity letting less water evaporate into the air. Charcoal 9 absorbs water from the air inside the lower half of the container to water the **plants**. Water storage 5 assures an amount of water necessary for **plants** to grow.

Probable Assignee: KAWADA CONSTRUCTION CO LTD

Earliest Publication Date: 20040212



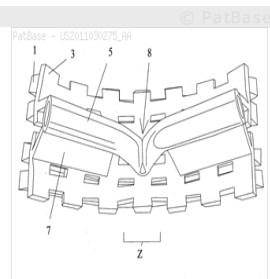
9) Family number: 34236264 (US2011030275A)

MOISTURE RESPONSIVE DEVICE AND METHOD

Abstract: Source: US2011030275A A moisture responsive device is described having a moisture responsive element comprising at least a moisture responsive formation of a first material in association with a less moisture responsive formation of a second material, in that the first material has a greater tendency to absorb moisture and to increase in volume as a result than the second material, the two formations being so mechanically arranged together that such swelling tends to cause mechanical deformation of the moisture responsive element; and an actuation member optionally of flexibly resilient material in mechanical association with the moisture responsive element so that distortion of the moisture responsive element in the presence of moisture tends to mechanically distort the actuation member and thereby cause the actuation member to change between at least a first functional state and a second functional state. A method of use, especially in **irrigation** control, is also described.

Probable Assignee: BROWN MICHAEL

Earliest Publication Date: 20080612



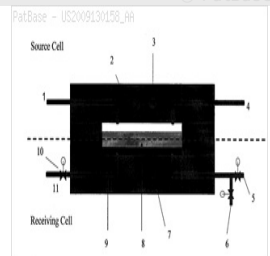
10) Family number: 42871914 (US2009130158A)

POLYMER COMPOSITE FILM WITH BARRIER FUNCTIONALITY

Abstract: Source: US2009130158A Polymer composite material with barrier functionality, in particular for the use in fumigation methods, comprising at least one base polymer compound and at least one barrier functional layer, wherein the barrier functional layer comprises at least one binder that is cross-linkable and after cross-linking capable of water absorbing and gel-forming.

Probable Assignee: IMAFLEX INC

Earliest Publication Date: 20090123



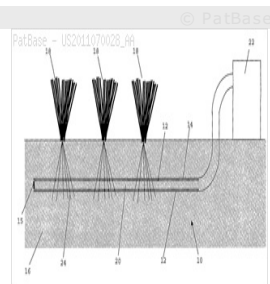
11) Family number: 43687206 (US2011070028A)

REVERSE OSMOSIS **IRRIGATION**

Abstract: Source: US2011070028A A **plant** watering device is disclosed. The device has a preferentially water permeable membrane arranged to separate a supply of water from a root system of a **plant**. The membrane is arranged to allow water to permeate to water the roots.

Probable Assignee: OF SYDNEY UNIV

Earliest Publication Date: 20090903



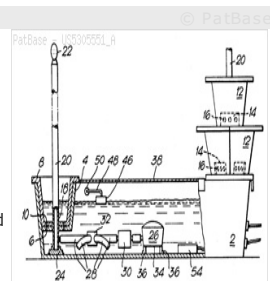
12) Family number: 11540521 (US5305551A)

COLUMN **PLANTER**

Abstract: Source: US5305551A There is provided a column **planter** including a tank to be filled with water, a plurality of **planting pots** stackable on top of each other, to form at least one column of stacked **pots**, each **pot** having a central opening in its bottom, as well as a plurality of drainage holes, and a substantially vertical, substantially rigid tube for each column on which tube, with their central openings, are strung the **pots** of the column. The lower end of the tube is supported in the tank and the tube is of such length as to at least protrude beyond the soil surface of the uppermost **pot** in a column and an emitter is attached to the upper end of the vertical tube. There are further provided mounting and supporting members for affixing the column of **pots** on the tank, and a pump having an inlet and an outlet opening and adapted to draw water from the tank. The outlet opening is operatively connected to the lower end of the vertical tube into which the pump forces the water drawn from the tank, to be issued from the emitter at the upper end of the tube, wherein water issuing from the emitter trickles down, passing from one **pot** into another **pot** therebelow through the drainage holes, and returns to the tank to be recirculated by the pump.

Probable Assignee: VERTI GRO INC A COLORADO AUTHORIZED TO DO BUSINESS IN FLORIDA CORP

Earliest Publication Date: 19911212



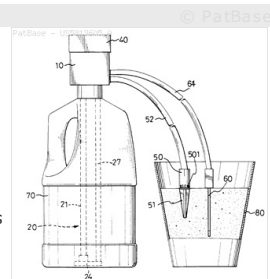
13) Family number: 17870290 (US5813605A)

IRRIGATION ASSEMBLY OF POTTED **PLANTS**

Abstract: Source: US5813605A The present invention relates to an **irrigation** assembly for potted **plants** including a housing for containing batteries and a motor therein with a drain hole formed on one side of the housing. A water pump extends from the bottom of the housing to extend into a container for pumping the water into the housing through a water conduit and discharging the water from the drain hole. A water outlet device is connected to the drain hole of the housing through a water discharge pipe. A control circuit PCB has two rotary switches for setting a fixed-humidity mode or a fixed-amount mode and a control circuit for controlling the electrical conduction opportunity of the motor formed thereon. A humidity sensing rod is connected to the housing by electric wires and is formed in a long strip with a plurality of electrode contacts being formed thereon, and being directly inserted into the soil of the potted **plants**. The moisture inside the soil can be detected by the humidity sensing rod and is compared with the set humidity value, and proceeds timely water supplying when insufficient moisture is detected.

Probable Assignee: CHOU TSUNG LI TAIPEH T AI PEI TW

Earliest Publication Date: 19970724



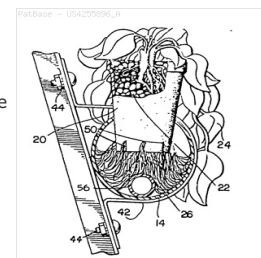
14) Family number: 1945219 (US4255896A)

HYDROPONIC GROWING APPARATUS

Abstract: Source: US4255896A A hydroponic **plant** growing apparatus is disclosed wherein a nutrient enriched liquid is flowed within a series of ducts adapted to mount a plurality of **planting** cups, each of which support a sterile media and a **plant** seedling. The **planting** cup includes an apertured bottom surface which permits capillary action of the nutrient liquid into the support media as well as allows the root system of each **plant** to extend into the duct yet isolates the sterile media from direct flow contact with the nutrient liquid. The individual **plant** cups eliminate contamination of the nutrient liquid, facilitate easy removal and replacement of individual **plants** on the apparatus, and form an effective seal with the ducts yielding a substantially hermetically sealed apparatus which is not susceptible to rain contamination, evaporation, or algae growth.

Probable Assignee: CARL VINCENT P

Earliest Publication Date: 19801224



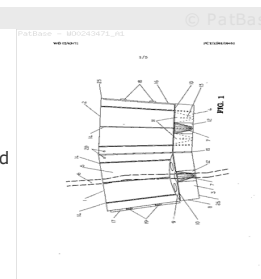
15) Family number: 23185573 (WO0243471A1)

PLANT AND TREE REPRODUCTION DEVICE BY LAYERING

Abstract: The invention relates to a device using a semi-rigid body formed by two halves (1, 2), said body being substantially hollow and having a truncated cone-shaped **structure** serving as **plant pot**. A branch (6) of a tree or **plant** is located inside said body, which is filled with earth or peat. The device also comprises water tanks (3, 4) to preserve the humidity of the device, which causes the treated branch to take root thereby producing small trees and **plants** that are suitable for **planting** in the ground or in a **plant pot** with a high degree of success. One embodiment comprises means for viewing both the amount of water in the tanks ensuring humidity of the device and the degree of growth of the roots. Another embodiment includes a bayonet lock.

Probable Assignee: LLEO FAURA JOSE LUIS

Earliest Publication Date: 20020606



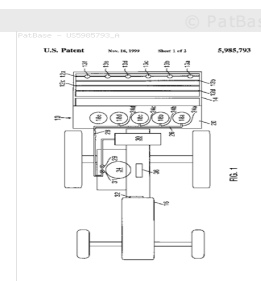
16) Family number: 29940309 (US5985793A)

SEQUENTIAL APPLICATION METHOD FOR TREATING PLANTS WITH EXOGENOUS CHEMICALS

Abstract: Source: US5985793A A novel method is provided wherein **plants** are first treated with an exogenous chemical (e.g., glyphosate herbicide) and then sequentially treated with a liquid accession agent which provides improved biological (e.g., herbicidal) effectiveness such that **plants** are controlled with lower rates of the applied exogenous chemical (e.g., glyphosate herbicide). Sequential application has been demonstrated to reduce the antagonism to herbicidal effectiveness that can be exhibited when the accession agent is added to a herbicide in a tank mix or simple coformulation. Typical accession agents employed in the disclosed method include a class of surfactants known as superwetting agents, such as certain organosilicone-based and fluorocarbon-based surfactants.

Probable Assignee: MONSANTO TECHNOLOGY LLC

Earliest Publication Date: 19980205



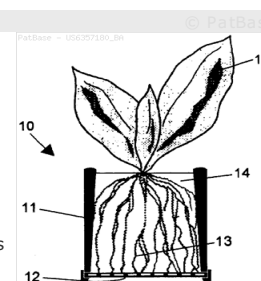
17) Family number: 30230495 (US6357180B)

PUSH-PULL ROOT AIR-PRUNING TRAY AND CONTAINER SYSTEMS

Abstract: Source: US6357180B The present invention entails a **plant**/seedling/cutting/plug growing tray and container system that includes a tray with a plurality of individual **plant** cells and container with each cell and container having an open top and bottom and a detachable screen bottom, and that allows **plant** removal either from the open bottom of the tray/container or open top of the tray/container. As **plant** roots emerge through an open-bottom tray or container supported above ground, the roots shrivel due to contacting dry air and temporarily suspend their growth. This bare-root growth phenomenon is known as air pruning. Proper application of root air-pruning process in conjunction with the use of properly shaped tray-cells and containers (small at the top and gradually getting larger at the bottom) significantly increases **plant** production, improves crop quality and promotes mechanization. Air pruning alone without the right tray and container will not provide these benefits. The present invention which utilizes computer optimization techniques to determine the proper inner sidewall angle of tray-cells and containers also allows air-pruned **plants** to be manually or automatically removed from the open tops of tray-cells and containers. Alternatively, in one embodiment, the **plant** container consists of more than one piece of sidewalls which can be put together to form a **plant** container. In addition, the detachable screen is provided with a series of projecting legs designed for self-supporting so as to detachably secure the screen into the **plant** tray and container **structure** to facilitate root air pruning.

Probable Assignee: PENG TIAN SUNG

Earliest Publication Date: 20000524



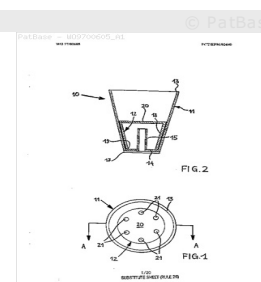
18) Family number: 30243194 (WO9700605A1)

CONTAINER FOR CULTIVATIONS OF DIFFERENT KIND

Abstract: Container for cultivations of various kind, of the type for garden and flower nursery, for balcony and the like, into which a water supply of predetermined volume is introduced and is employed for irrigating automatically the cultivations for long periods of time. Container comprising a first and a second component part (11, 51; 12, 53) co-operating to each other, delimiting a chamber containing the mould and the respective cultivations and an inner chamber for the storage of such water supply. These chambers are communicating to each other and shaped in a way to permit the **irrigation** water to pass toward the underlying inner chamber and to ascend subsequently by capillarity toward the containing chamber. Different embodiments of the invention are foreseen.

Probable Assignee: IMMOBILIARE CRISTAL SAS DI GAT

Earliest Publication Date: 19961223



19) Family number: 30262939 (EP0620204A1)

MOISTURIZING AND/OR NUTRIENT AGENT AND METHOD FOR PRODUCING THE SAME.

Abstract: Source: EP0620204A1 The moisturizing and nutrient agent of high viscosity is constituted basically by water, a hydrated metallic salt, cellulosic compound and concentrated dressing. This agent can release water and nutrient substances when interacting with biological organisms contained in soil surrounding a **plant** or in water for hydroponics. Also a method is described for producing a moisturizing and nutrient agent capable to provide a vegetal organism with water, air and concentrated dressing.

Probable Assignee: RAN RICERCH E APPLICATE NATUR

Earliest Publication Date: 19940919

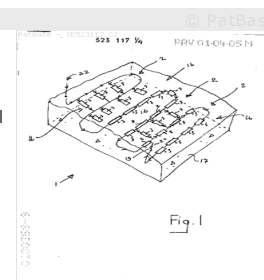
20) Family number: 30463402 (SE200100359A)

ANORDNING VID EN BEVATTNINGSANLÄGGNING

Abstract: Source: SE200100359A At least part of the pipe system is connected to one or more vessels (3) containing at least one capillary **irrigation** module (4) for delivering water or another liquid (22) to at least one soil region (22).

Probable Assignee: JANSSON LARS

Earliest Publication Date: 20020803



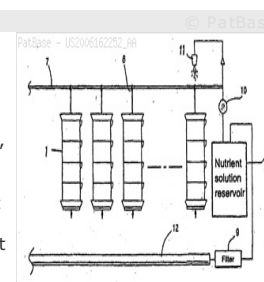
21) Family number: 30648842 (US2006162252A)

HYDROPONIC DEVICE AND HYDROPONIC **POT** THEREOF

Abstract: Source: US2006162252A A nutriculture device and a stack-type nutriculture **pot** system for use in the nutriculture device are disclosed. The nutriculture vice includes moving means for periodically moving a plurality of nutriculture **pots**, each having culture soil for supporting a crop, on a predetermined closed loop type moving track, a spray nozzle installed at a location on the moving track of the nutriculture **pots**, for supplying a nutrient solution to the nutriculture **pot** passing through the location, and a nutrient solution recovery channel for recovering the nutrient solution flowing from the nutriculture **pot**. Since the above-described nutriculture device supplies a nutrient solution to a plurality of nutriculture **pots** using a single spray nozzle, its construction can be noticeably simplified. Also, since a nutriculture **pot** moves periodically so that its location in a houseplant changes at any time, an amount of sunshine applied to a crop is uniformly maintained, allowing the crop to grow evenly.

Probable Assignee: SUNHO LIM

Earliest Publication Date: 20030514



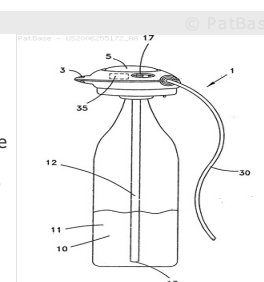
22) Family number: 30877669 (US2006255172A)

PORTABLE **IRRIGATION** DEVICE

Abstract: Source: US2006255172A The invention provides a portable **irrigation** device for dispensing **irrigation** liquid from a container to a target **plant** holder substrate area. The device comprises a dispensing unit which is releasably attached to the container, a control unit for activating or deactivating the dispensing unit, and a discharge tube in fluid communication with the dispensing unit through which discharged **irrigation** flows. **Irrigation** liquid is discharged from the container as a result of pressurized air which is generated by said control unit and injected into the container.

Probable Assignee: EVERLASTING GLORY LTD

Earliest Publication Date: 20040819



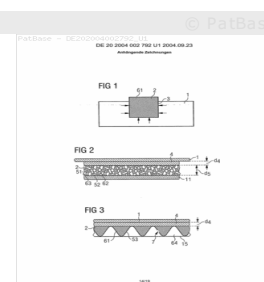
23) Family number: 30925571 (DE202004002792U1)

PLANT GROWTH SYSTEM COMPRISES **PLANT** GROWTH MEDIUM WITH CAVITY CONTAINING WATER-STORING MATERIAL

Abstract: Source: DE202004002792U1 **Plant** growth system comprises a **plant** growth medium (1) with a cavity (61) containing a water-storing material (2). An independent claim is included for a water store comprising an outer wall, through which **plant** roots can grow, which is filled with a water-storing material.

Probable Assignee: KAHL LOTHAR

Earliest Publication Date: 20040819



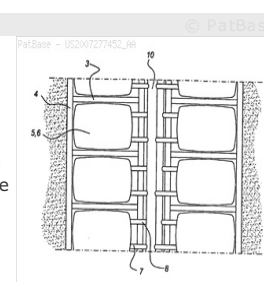
24) Family number: 32502090 (US2007277452A)

FLOOR FOR A CULTIVATION AREA

Abstract: Source: US2007277452A A floor for a cultivation area such as a greenhouse. An accommodating hole is excavated in the ground and a flexible holder for liquid such as water is placed therein. The top of said holder is provided with a supporting plate. By varying the level of the supporting plate, the level of the greenhouse floor is varied. The water can contain heat. Optionally there can be a further holder which, for example, contains liquid with different properties, such as a different temperature. A number of such holders can be incorporated in a greenhouse floor.

Probable Assignee: KLIMREK IE BV

Earliest Publication Date: 20050920



IRRIGATION SYSTEM AND METHOD FOR IRRIGATING OR FERTILIZING

Abstract: Source: US2010006015A A watering apparatus comprising a storage container having a tubular section which is closed with an open-cell foam based on an aminoplast, and a method for watering or applying fertilizer.

Probable Assignee: BASF SE

Earliest Publication Date: 20080814

PLANT IRRIGATING SYSTEM AND A METHOD

Abstract: Source: US2014215909A The invention relates to a **plant** irrigating system (1), comprising a collection **structure** (99) for collecting moisture present in the atmosphere, wherein the collection **structure** is provided with a water recovery surface (24) which during use at least partly makes an angle with respect to the orientation of gravity. The **plant** irrigating system further comprises a reservoir (98) for storing the recovered moisture, wherein the reservoir is provided with **irrigation** means (19,21) for delivering moisture present in the reservoir to a subsoil located therebelow. The collection **structure** and the reservoir are manufactured from paper material and/or biodegradable plastic.

Probable Assignee: HOLLAND TECHNOLOGY BV

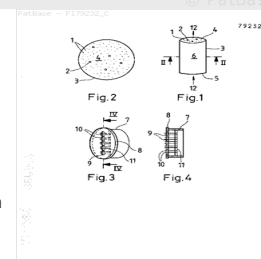
Earliest Publication Date: 20120621

**BEVATTNINGSANORDNING SAMT FOERFARANDE OCH MUNCSTYCKSKONSTRUKTION FOER TILLVERKNING AV ANORDNINGEN.**

Abstract: Source: FI79232B Keksinnöen kohteena on huokoinen kastelulaite (6) nesteensiirtoon kaeytettaevaeksiesim. kasvien automaattisessa kastelussa. Kastelulaite (6) on kiinteä ja paeaesiassa sauvamainen kappale, johon kuuluu olennaisesti kapillaarihuokosia (1). Lisaeksi keksinnöen kohteena on menetelmä ja suutinrakenne kasvien kastelussa kaeytettaevaen kiinteän huokoisen kastelulaitteen valmistamiseksi. Menetelmäessä savimassa puristetaan suuttimen (7) laepi, jolloin muodostuvaan pitkäenomaiseen laitteeseen (6) syntyy kapillaarihuokosia (1) edullisten nesteensiirto-ominaisuuksien saamiseksi ja muodostuneet kastelulaitet poltetaan sinaensae tunnetulla menetelmäellä. Suutinrakenteeseen kuuluu massan puristussykkoeseen yhdistetty suutin, johon kuuluu ainakin yhdellä aukolla varustettu suutinlevy, jonka laepi massa puristetaan. Lisaeksi suutinrakenteeseen kuuluu ainakin yksi lankamainen elin sijoitettuna olennaisen vapaasti suuttimen sisäpuolelle siten, että elin työntyy suutinlevyn laepi puristettavan massan mukana aukon ulkopuolelle, etäisyyden paeaehen suutinlevystae. Uppfinningens foeremal aer en poroes bevattningsanordning (6) foer vaetsketransport foer anvandning t ex i automatisk bevattning av vaexter. Bevattningsanordningen (6) aer en fast och i huvudsak stavformig kropp till vilken vaesentligen hoer kapillaerporer (1). Dessutom gaeller uppfinningen ett foerfarande och en dyskonstruktion foer anvandning vid framstaellning av en poroes bevattningsanordning foer anvandning i bevattning av vaexter. I foerfarandet pressas en lermassa genom en dys (7), varvid i den avlanga anordningen (6) som bildas uppstar kapillaerporer (1) i och foer astadkommandet av foerdelaktiga vaetsketransportegenskaper, och de bildade bevattningsanordningarna braenns enligt ett i och foer sig kaent foerfarande. Till dyskonstruktionen hoer en till en massapressningsenhet ansluten dys, till vilken hoer en med minst en oepning foersedd dysplatta, genom vilken massan pressas. Dessutom hoer till dyskonstruktionen minst ett tradformigt element placerat vaesentligen fritt inuti dysen pa sa saett att elementet skjuts genom dysplattan med massan som pressas ut pa utsidan av oepningen, till ett avstand fran dysplattan. In the Keksinnöen a porous **irrigation** device (6) fluid transmission kaeytettaevaeksiesim. automatic watering the **plants**. **Irrigation** device (6) is kiinteä and paeaesiassa rod-like body comprising a substantially kapillaarihuokosia (1). Lisaeksi subject keksinnöen is menetelmä and nozzle assembly **plant irrigation** kaeytettaevaen kiinteän for the preparation of porous **irrigation** unit. Menetelmäessä clay mass is pressed laepi nozzle (7) to be formed in a pitkäenomaiseen device (6) is produced kapillaarihuokosia (1) to provide the preferred transmission characteristics of the liquid and the formed kastelulaitet burned sinaensae known menetelmäellä. Puristussykkoeseen mass of the nozzle **structure** is connected to the nozzle, which is provided with at least yhdellä opening of the nozzle plate, which laepi pulp is pressed. Lisaeksi nozzle **structure** includes at least one thread-like element disposed substantially freely nozzle sisäpuolelle so että työntyy body with the nozzle plate laepi mass to be extruded from the aperture, etäisyyden paeaehen suutinlevystae.

Probable Assignee: RAIKKONEN JAAKKO

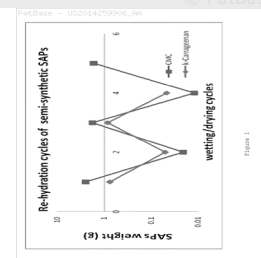
Earliest Publication Date: 19880605

**MICROENVIRONMENT FOR EFFICIENT UPTAKE OF FERTILIZERS AND OTHER AGROCHEMICALS IN SOIL**

Abstract: Source: US2014259906A The present invention provides a bead comprising: i) an external zone comprising a super absorbent polymer (SAP) that is capable of absorbing at least about 5 times its weight in water, surrounding ii) at least one internal zone comprising a core that contains at least one agrochemical, wherein the external zone is permeable to oxygen when hydrated, or the internal zone is formulated to release the at least one agrochemical into the external zone over a period of at least about one week when the hydrogel of the external zone is hydrated. The present invention also provides methods of using beads of the invention.

Probable Assignee: ADAMA MAKHTESHIM LTD

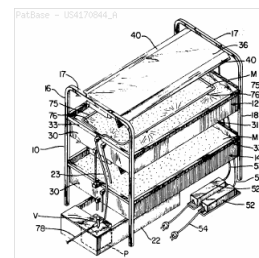
Earliest Publication Date: 20140918

**HYDROPONIC GARDENING METHOD AND SYSTEM**

Abstract: Source: US4170844A A gardening method and unit utilizes a unique liquid circulating system in combination with an adjustable, high intensity lighting system including a novel form of reflector panel assembly in which the feeding cycle and the lighting cycle can be closely regulated to control the environment for **plant** life within an enclosed area. The method and system of the present invention is particularly advantageous in relatively compact portable units so constructed that the seedlings or **plants** may be grown in upper and lower spaced trays, each having its own lighting system controlled by a common timer and a common liquid circulating system in which the liquid or nutrient solution may be pumped into the upper tray and drained by gravity into the lower tray to carry out combined top flooding and subirrigation. In the alternative the system is operative to carry out top-**irrigation** by spraying water in the form of a fine mist over natural or organic soils. The circulation system is such as to minimize power requirements and reservoir capacity for a given rate of feeding for each tray.

Probable Assignee: JOHN E REILLY

Earliest Publication Date: 19791016



30) Family number: 8352334 (WO9303606A1)

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AN AIR-PERMEABLE PLATE FOR **PLANT** CULTIVATION AND A METHOD FOR CULTIVATION OF **PLANTS** UTILIZING THE SAME

Abstract: An air-permeable plate for cultivation of **plants** which is formed by combining paper boards treated with a decay-resistant agent using a waterproof adhesive agent thereby providing channels which have contact with the atmosphere, and buried in an area of the medium near the roots of the **plants** while maintaining the contact of the channels with the atmosphere, in order to provide oxygen to the **plants** as well as a method for cultivation of **plants** utilizing such an air-permeable plate.

Probable Assignee: PURANTEKU NITSUTEN KK

Earliest Publication Date: 19930304