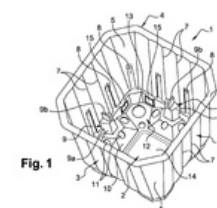
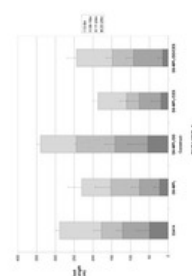
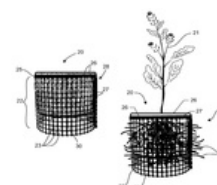
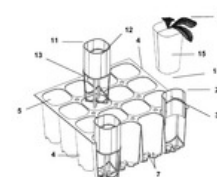
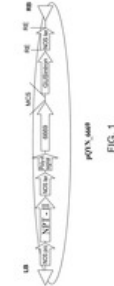
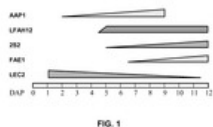
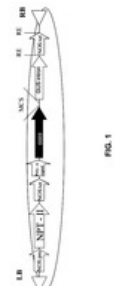
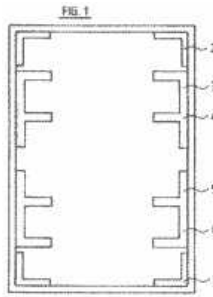
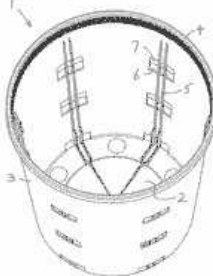
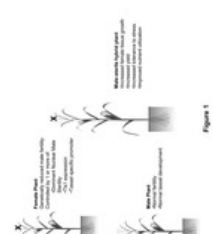
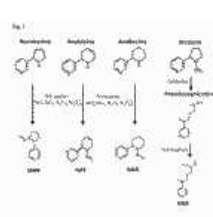
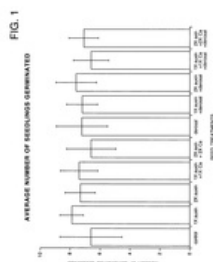


6.	Isolated polynucleotides and polypeptides, and methods of using same for increasing plant yield and/or agricultural characteristics	CA2958039	2015-08-24	EOGENE*	99 %
Provided are isolated polypeptides which are at least 80% homologous to SEQ ID NOs: 182-184, 186-202, 204-216, 219-223, 225, 227-232, 235-236, 238, 240-260, 262-268, 270-275, 277-287, 289-297, 3651-3671, 3686, 3720-3721, 3724, 3727, 3735, 3754, 3774, 3795-4304, 4316, 4374, 4425, 4464, 4481-4813, 4824, 4833, 4843-4844, 4867-4869, 4888, 4890-4891, 5005-5050, 5053-5070, 5093, 5217, 5231, 5233, 5239, 246, 5255, 5257-5296, 5412, 5415-5429, 5447-5456, 5465-5673, 5675-5686, 5688-695, 5697-5698, 5700, 5702-5707, 5709-5715, 5717-5785, 5831, 5869, 5980, 6010- 6043, 6045-6053, 6055-6093, 6132, 6383, 6405, 6493, 6523, 6533-6537, and 6563-6589, isolated polynucleotides encoding same, nucleic acid constructs comprising same, transgenic cells expressing same, transgenic plants expressing same and method of using same for increasing yield, abiotic stress tolerance, growth rate, biomass, vigor, oil content, photosynthetic capacity, seed yield, fiber yield, fiber quality, fiber length, and/or nitrogen use efficiency of a plant.					
7.	Modular electronic vase with automated, digital control and monitoring system, used for aeroponic growth of plants in inner and outer environments	BR102016007035	2016-03-30	ALESSANDRO CREGO ALCEBIADES FERREIRA RS MANDES*	99 %
The invention relates to a device for growing plants with aerponics, in the form of a dismantable modular vase composed of superposed modules (4) linked by joining rings (2) and covered by a sealing lid (1) or (21). The modules have a plurality of mouthpieces (5) symmetrically distributed at angular positions, into which the accessories are introduced, such as the rooting basket (6), the micro-greenhouse (22), the seed capsule in the form of a foam cube for germination (23), the support disks (24), (26) or (27), the rod (28) and the grid (29). A tank in two parts (32) and (33) forms a base for the device and comprises an inspection and supply lid (7), a protective grid (8) an on/off switch (9), a connection (10) for the power cable, rollers (30), support legs (31) and an electronic panel (11) that displays information about the level of the nutrient solution, temperature, humidity, timer control and automatic actuation functions of the electric components and electronic circuits. The device actuating components are housed inside, together with the float (15) which stores a minigenerator (16) of nutrient solution nanoparticles, a ventilation pump (17) with an air hose (18), a silencing capsule (19) and a ruler (20) with level sensors.					
8.	Systems for cultivating plants with aerial roots	WO2015181278	2015-05-28	FLORÁ**AC* FLORÉAC	99 %
The application provides methods and systems for cultivating plants, more particularly plants with aerial roots. The methods and systems are provided with one or more features which facilitate the cultivation of such plants. More particularly the application provides a system comprising a cultivation tray and vases fitting therein, whereby each of the vases comprise one or more ridges on the inner wall of said vase.					
9.	Plant container assembly and method	WO2009137774	2009-05-08	PIONEER PET*	99 %
A transplantable plant container assembly is provided for containing a growing medium for a plant that significantly promotes air root pruning. The container assembly includes a container device (28) that includes a sidewall support (27) and a bottom support (30) collectively defining an interior cavity. The sidewall support (27) is comprised of a lattice framework (22) defining a plurality of spaced apertures (23) that extend from an interior wall to an exterior wall thereof. A relatively thin, moisture absorbent liner (26) material is disposed adjacent to the lattice framework (22). The liner material (26) is sufficiently penetrable to enable root penetration therethrough, by the plant, at the apertures. However, the liner material (26) must also have sufficient structural integrity, when moist, to bound the growing medium and moisture across the spaced apertures (23) of the lattice framework (22) when contained in the interior cavity.					
10.	The use of dimerization domain component stacks to modulate plant architecture	WO2011011273	2010-07-16	DUPONT PIONEER*	99 %
This invention provides means for altering the harvest index of crop plants by modulating the expression of transgenic genes using dimerization domain and component stacks, thereby modulating plant architecture. The transgene/dimerization domain stacks are provided in a single transformation vector unit and are used to modulate plant growth, yield, and harvest index in plants.					
11.	Pot or cup for growing plants	FR2979797	2011-09-14	JD TRANSBIO*	99 %
The cup has a container (1) comprising side walls (3) and an opening (4) at an end. Each side wall has rectangular elongated weak zones (8) having thickness lower than average thickness of the side wall such that roots perforate the zone during growth of a root system. Radial projections (9) extend inside the cup from a truncated tetrahedron shaped perforated embossing (10) in a perforated bottom wall (2) of the cup. The embossing extends inside the cup so as to avoid chignonage of the system and to guide the roots toward the zone and circular through openings (11, 13) in the bottom wall.					

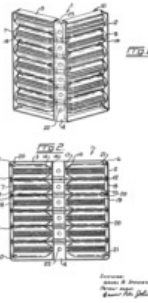
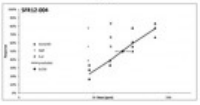
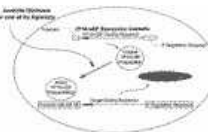
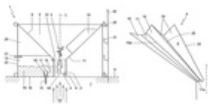
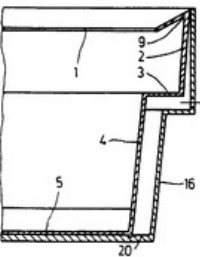


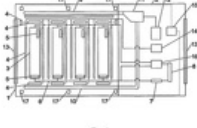
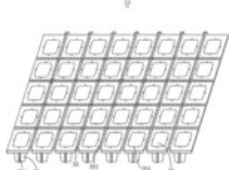
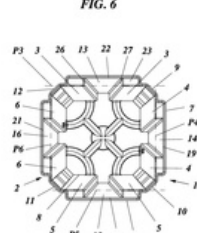
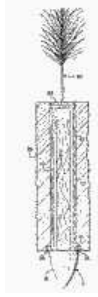
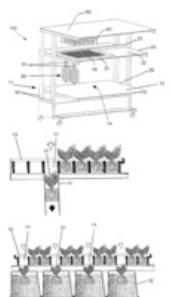
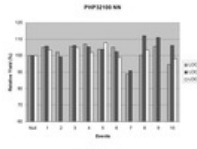
12.	Improving plant drought tolerance, nitrogen use efficiency and yield	CA2853775	2012-10-29	DUPONT PIONEER*	99 %
The present disclosure provides polynucleotides and related polypeptides which are used to modify ethylene sensitivity in plants. Ethylene insensitive transgenic maize plants produce higher grain yields in water deficient and low nitrogen environments than non-transgenic plants. Through controlled expression of the transgene in desired tissues and organs, or specific plant developmental stages, the ethylene perception and signal transduction is altered to create transgenic plants which yield better under abiotic stress.					
					
13.	Isolated polynucleotides and polypeptides and methods of using same for increasing plant yield, biomass, growth rate, vigor, oil content, abiotic stress tolerance of plants and nitrogen use efficiency	CA2865483	2013-02-27	EVOGENE*	99 %
Provided are isolated polynucleotides comprising a nucleic acid sequence encoding a polypeptide at least 80 % identical to SEQ ID NO: 422, 362-421, 423-601, 2429-4085 and 4086, such as a polynucleotide which is at least 80% identical to SEQ ID NO: 260, 1-259, 261-361, 602-2427 and 2428, nucleic acid constructs comprising same, plant cells comprising same, transgenic plants expressing same, and methods of generating thereof for increasing the yield, biomass, growth rate, vigor, oil content, fiber yield, fiber quality, nitrogen use efficiency and/or abiotic stress tolerance of a plant.					
					
14.	Increased seed size and seed number through transgenic over expression of a growth and/or development related gene during early embryo development	WO2007079353	2006-12-15	TARGET GROWTH TARGETED GROWTH* TARGETID GROUS INK	99 %
The present invention provides methods and compositions for increasing the seed size and/or seed number in plants. In particular, the methods and compositions provide for the over expression of a plant growth and/or development related or associated gene during embryo development. Transgenic plants transformed with genetic constructs having the plant growth and/or development associated gene under the control of an early phase-specific embryo promoter provides mature plants in the field that produce larger and/or more seeds. Methods for selection growth and development associated genes that provide transgenic plants with a higher yield phenotype are also provided.					
					
15.	Method for modifying plant morphology, biochemistry and physiology	WO2001096580	2001-06-18	SCHMULLING THOMAS STOLZ CLAUDIA* THOMAS SCHMULLING TOMAS WERNER Thomas Schmidt Thomas Werner WERNER TOMAS	99 %
The present invention relates to methods for stimulating root growth and/or enhancing the formation of lateral or adventitious roots and/or altering root geotropism comprising expression of a plant cytokinin oxidase or comprising expression of another protein that reduces the level of active cytokinins in plants or plant parts. The invention also relates to novel plant cytokinin oxidase proteins, nucleic acid sequences encoding cytokinin oxidase proteins as well as to vectors, host cells, transgenic cells and plants comprising said sequences. The invention also relates to the use of said sequences for improving root-related characteristics including increasing yield and/or enhancing early vigor and/or modifying root/shoot ratio and/or improving resistance to lodging and/or increasing drought tolerance and/or promoting in vitro propagation of explants and/or modifying cell fate and/or plant development and/or plant morphology and/or plant biochemistry and/or plant physiology. The invention also relates to the use of said sequences in the above-mentioned methods. The invention also relates to methods for identifying and obtaining proteins and compounds interacting with cytokinin oxidase proteins. The invention also relates to the use of said compounds as a plant growth regulator or herbicide.					
					
16.	Isolated polynucleotides and polypeptides and methods of using same for increasing plant yield, biomass, growth rate, vigor, oil content, abiotic stress tolerance of plants and nitrogen use efficiency	WO2011/080674	2010-12-22	EVOGENE*	99 %
Provided are isolated polynucleotides encoding a polypeptide at least 80% homologous to the amino acid sequence selected from the group consisting of SEQ ID NOs: 799, 488-798, 800-813, 4852-5453, 5460, 5461, 5484, 5486-5550, 5553, and 5558-8091; and isolated polynucleotide comprising nucleic acid sequences at least 80 % identical to SEQ ID NO: 460, 1-459, 461-487, 814-1598, 1600-1603, 1605-1626, 1632- 1642, 1645-4850 or 4851. Also provided are nucleic acid constructs comprising same, isolated polypeptides encoded thereby, transgenic cells and transgenic plants comprising same and methods of using same for increasing yield, biomass, growth rate, vigor, oil content, fiber yield, fiber quality, abiotic stress tolerance, and/or nitrogen use efficiency of a plant. Also provided are isolated polynucleotides comprising the nucleic acid sequence set forth by SEQ ID NO: 8096, wherein the isolated polynucleotide is capable of regulating expression of at least one polynucleotide sequence operably linked thereto.					
					

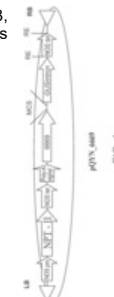
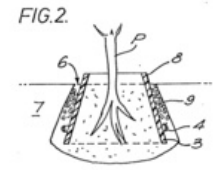
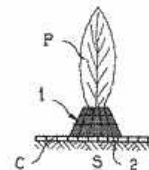
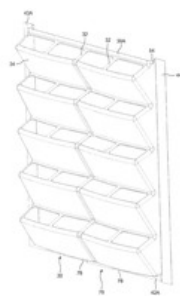
17.	Container trays dimensioned for standard pallets - can be stacked when empty by their feet and have openings to take others in the stack	DE4221178	1992-07-01	GRESITZA HORST HANS HERMANN;TEUBNER INGRID	99 %
The carrier trays, to carry and store foodstuff produce, plants and small industrial components and the like, are dimensioned to that when they are loaded, four trays next to each other cover the surface of a standard Euro pallet without projection and, when stacked empty, three trays can be placed on a standard Euro pallet without projection when stacked. The base, near the four feet (2) at each longitudinal side has at least two sets of generally L-shaped openings (3-6), in a mirror image to the lateral and longitudinal axes of the trays. USE/ADVANTAGE - The trays, which can be stacked, are for the carriage and storage of small items such as foodstuffs, plants and small industrial components. The container is simple and cheap to produce, meets standard dimension specifications, with a wide range of applications in commerce and industry, household or hobbies, taking up little space.					
					
18.	Plant container	GB0418026	2004-08-12	INTERNATIONAL PLANT PROPAGATION TECHNOLOGY*	99 %
A container for growing plants has a base and a side wall extending upwardly from the base, for containing a growing medium. An opening is defined in an inclined portion of the side wall, and a rib positioned on the side wall and facing into the container defines a root-guiding angle between the rib and the side wall, the root-guiding angle leading to the opening. Plant roots growing adjacent to the side wall are therefore guided by the root-guiding angle to the opening to be air pruned.					
					
19.	Genetic reduction of male fertility in plants	CA2867377	2013-03-12	DU PONT DE NEMOURS* DUPONT PIONEER*	99 %
A nuclear maize gene is mutated to result in dominant male sterility. Two mutants are provided which impact signal peptide processing. Restoration constructs and methods are provided for use of the dominant male-sterile mutants in producing hybrid seed for male-sterile hybrid plants. Other signal-peptide modifications are provided. Orthologs of the wild type or mutated gene in various species are provided.					
					
20.	Methods and compositions for reducing the tobacco specific nitrosamine nnk in tobacco	WO2016179356	2016-05-05	NORTH CAROLINA STATE UNIVERSITY* NORTH CAROLINA STATE UNIVERSITY NORTH CAROLINA STATE UNIVERSITY	99 %
The present invention provides a tobacco plant, plant part, and/or plant cell comprising one or more heterologous nucleic acid molecules comprising a nucleotide sequence encoding a pseudooxynicotine degrading enzyme. Further provided are methods and compositions for producing tobacco plants and tobacco products having reduced pseudooxynicotine (PON) and/or 4-(methyl nitrosoamino)-1-(3-pyridyl)-1-butanone (NNK) content.					
					
21.	Methods for improving growth and crop productivity of plants by adjusting plant hormone levels, ratios and/or co-factors	UY28479	2003-10-02	STOLER ENTERPRISES STOLLER ENTERPRISES* STRAR ENTERPRISES	99 %
In agriculture when temperature and moisture deviate from the norm two things happen, plant growth suffers and disease flourishes. The Stoller model for plant growth states that proper hormone balance is necessary for optimum growth and performance. When growth conditions deviate from the norm, hormone balance is altered and plant growth suffers. This invention presents evidence to support this model and explain the relationship between hormone levels and plant growth. A clear understanding of this relationship will facilitate crop treatments aimed to eliminate these problems. Although we cannot control the climate, we can control the damage caused by environmental stresses by manipulating the levels and/or ratio of plant hormones in the different plant tissues. By adjusting the levels and/or ratios of hormones, particularly auxin and cytokinins in the root tissue, we can assist the plant in overcoming or compensating for this environmental stress.					
					

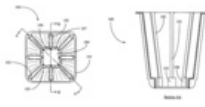
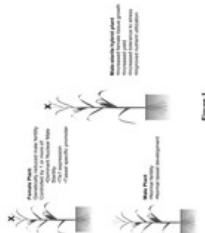
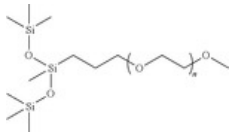
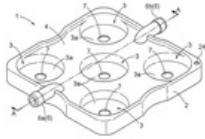
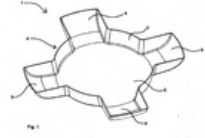
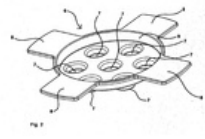
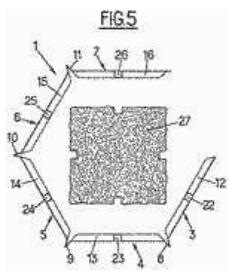
22.	Multi-tiered hydroponic planter composed of stackable units each housing rotatable plant recetacbles	US20180295800	2017-04-18	PHIDRO*	99 %
Vertically oriented modular systems and methods for horticulture using stackable, removable containers dimensioned according to the Fibonacci Sequence and configured to hold plants with or without sub-containers with roots wholly or partially submerged in aqueous nutrient solution for aerohydroponic growth with intake and outtake apertures and at least one conduit to deliver, air, and/or aqueous nutrient solution in fluid communication with other stacked containers, and adjustable baffling to control nutrient solution delivery. The containers are releasably divisible across the face of the container to promote removal, harvest and transplantation without disrupting or damaging plant roots. The containers can also be configured with sensors paired or connected to a computing system to monitor, measure, and store data related to monitoring plant growth. Mounting systems with container center of gravity below the mounting point for stability and automated track based systems for planting, monitoring, and lighting, and harvesting can also be used.					
23.	Isolated polynucleotides and polypeptides, and methods of using same for increasing plant yield and/or agricultural characteristics	CA2873846	2013-05-27	EVOGENE*	99 %
Provided are isolated polynucleotides, polypeptides encoded thereby, nucleic acid constructs comprising same, plant cells and plants comprising same and methods of generating plants with increased yield, biomass, growth rate, vigor, oil content, fiber yield, fiber quality, abiotic stress tolerance, and/or nitrogen use efficiency, wherein the polynucleotides encode polypeptides at least 80 % identical to SEQ ID NO: 574-930, 6266-10549 or 10550, such as the polynucleotides set forth in SEQ ID NOs:1-573, and 931-6265.					
24.	Push-pull root air-prunting tray and container systems	CN1253717	1998-10-29	HUANG BARNEY K. PENG TIAN SUNG SAITAMA PLAST ZHENGCHANG ENTERPRISE*	99 %
The present invention entails a plant/seedling/cutting/plugin 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.					
25.	Method of producing transgenic graminaceous cells and plants	WO2007079538	2007-01-11	MOLECULAR PLANT BREEDING NOMINEES*	99 %
The present invention provides a method for producing a transgenic graminaceous plant cell, said method comprising: (i) obtaining embryonic cells from a mature graminaceous grain; and (ii) contacting said embryonic cells with a bacterium capable of transforming a plant cell, said bacterium comprising transfer-nucleic acid to be introduced into the embryonic cells, said contacting being for a time and under conditions sufficient for said bacterium to introduce said transfer-nucleic acid into one or more of the embryonic cells, thereby producing a transgenic graminaceous plant cell. The present invention also provides a method for producing a transgenic graminaceous plant. The present invention also provides a transgenic graminaceous plant cell and/or a transgenic graminaceous plant produced by said method. The present invention also provides a method for expressing a nucleic acid in a transgenic graminaceous plant cell or a transgenic graminaceous plant.					
26.	Plant traits conferred by isolated polynucleotides and polypeptides	CA3008808	2016-12-22	EVOGENE*	99 %
Provided are isolated polypeptides, isolated polynucleotides encoding same, nucleic acid constructs comprising same, transgenic cells expressing same, transgenic plants expressing same and method of using same for increasing yield, abiotic stress tolerance, growth rate, biomass, vigor, oil content, photo synthetic capacity, seed yield, fiber yield, fiber quality, fiber length, early flowering, grain filling period, harvest index, plant height, and/or nitrogen use efficiency of a plant.					

32.	Methods for conferring insect resistance to a monocot using a peroxidase coding sequence	ZA9711359	1996-12-19	CIBA GEIGY NOVARTIS NOVARTIS FINANCE* OHI NACTO OHIO STATE UNIVERSITY OHIO STATE UNIVERSITY RESEARCH FOUNDATION* OHIO UNIVERSITY U S DEPT OF AGRICULTURE U S DEPT OF AGRICULTURE WASHIN US DEPARTMENT OF AGRICULTURE*	99 %
The present invention relates, in general, to methods and compositions for controlling insects in monocotyledonous plants (monocots), particularly maize. More precisely, the present invention relates to (1) a method for controlling insects comprising feeding or contacting an insect with an insecticidal amount of transgenic monocotyledonous plant cells comprising a recombinant DNA sequence comprising a coding sequence encoding peroxidase and (2) a fertile transgenic monocot plant comprising a recombinant DNA sequence comprising a coding sequence encoding peroxidase.					
33.	Plant container with transformable walls	AUPN702895	1995-12-08	LAWTON* PETER A LAWTON	99 %
A plant growth container which is transformable between operational and non-operational conditions in which it can and cannot respectively retain a body of growing medium. The container (1) includes a base (2) and a side wall structure (3) which upstands from the base (2) and has a tube-like configuration when the container (1) is in the operational condition. The side wall structure (3) is composed of a plurality of side wall sections (4) which cooperate to form the tube-like configuration and which are movable relative to one another and to the base (2) to transform the container (1) from one condition to the other. For that purpose the lower end of each wall section (4) can be pivotably or otherwise connected to the base (2). Each of the side wall sections (4) and the base (2) of the container may be provided with a plurality of openings (7, 8) so as to promote air pruning of the root structure of a plant growing within the container (1). The container (1) can be combined with a support tray (13) having locating means (16) which cooperates with the lower end of the container (1) to position the container (1) at a predetermined location on the tray (13). A cover (32) of the support tray (13) has an opening (33) which receives the container (1), and the part of the cover (32) surrounding that opening (33) functions as a retaining ring which holds the container wall sections (4) against movement away from one another. The container (1) can be used in an automated plant propagation system in which the container is transformed from the non-operational condition to the operational condition, a growing medium is deposited into the container, and a seed or seedling is deposited into the growing medium. Subsequent opening of the container and removal of a growing plant may be also automated.					
34.	Container, soil blend, and method of growing plants	CA2858075	2012-12-21	TROPICAL KANAWHA PRODUCT TROPICANA PRODUCTS* TROPICANA PRODAKTS INK	99 %
Containers having air pruning holes are have dimensions configured for germination and/or growth of citrus plants, including citrus root- stock, as well as other plants. One such container may have a width of about 2,54 to 3,18 cm and a depth of about 12,7 to 17,8 cm. Another such container may have a width of about 10,2 to 15,2 cm and a depth of about 30,5 to 35,6 cm. Soil blends containing about 30% coconut coir, 30% Cyprus bark sawdust, 40% peatmoss and various additives configured for use in germination and/or growth of citrus and other plants may be used in connection with the containers or independently of the containers.					
35.	Plant germinating and growing container - has double walled cells formed from foldable blank with interlocking side wall sections	FR2352491	1976-05-26	SPENCER HENRY*	99 %
The plant growing container (1) incorporates a row of separate cells, with a first and second wall section (2, 3) both made of relatively thin, flexible, non-porous plastic sheeting. Each wall section (2, 3) has a row of spaced out, elongated shoulders (5, 6) pointing inside the container (1), and which are interconnected by connecting pieces (7, 8). A series of parallel, half-troughs (9, 10) opening towards the inside of the container form the cells. There are holes in the bottom of each cell. The inside of the connecting pieces (7, 8) in the lengthwise direction of the cells have downward running root grooves (18, 19).					
36.	Gho/sec24b2 and sec24b1 nucleic acid molecules to control coleopteran and hemipteran pests	BR102015025537	2015-10-06	BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA DOW AGROSCIENCES* UNIVERSITY OF NEBRASKA*	99 %
This disclosure concerns nucleic acid molecules and methods of use thereof for control of insect pests through RNA interference mediated inhibition of target coding and transcribed non coding sequences in insect pests, including coleopteran and/or hemipteran pests. The disclosure also concerns methods for making transgenic plants that express nucleic acid molecules useful for the control of insect pests, and the plant cells and plants obtained thereby.					
37.	Plant growing apparatus for being quipped onto wall including longitudinally installed led modules and plant growing tray	KR20170047599	2015-10-23	KIM SU*	99 %
The present invention relates to a wall surface installation-type plant growing apparatus, in which an artificial lighting source device is adjusted to meet growing conditions, required to grow plants planted in a seedling body which is detachably inserted, in a growing port with holes formed longitudinally on a plant growing plate installed vertically to a wall surface frame. The present invention relates to the wall surface installation-type plant growing apparatus, which laterally irradiates light energy irradiated from the artificial lighting source device, thereby efficiently growing many plants in a narrow space, and providing an effect of a wall surface indirect lighting in a building.					

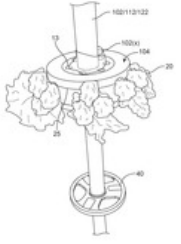
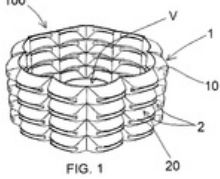
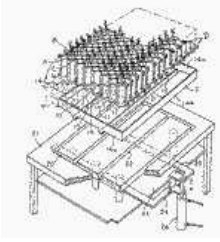
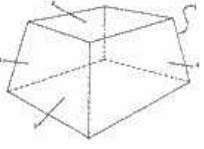
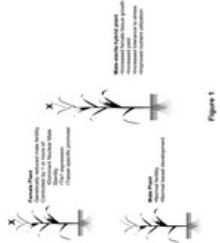
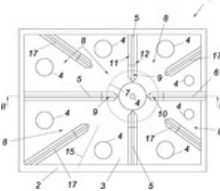
38.	Container arrangement for drawing up plants	CA989614	1973-08-07	HENRY HENRY SPENCER H* SPENCER H* SPENCER H A	99 %	
1535974 Containers for seedlings H A SPENCER 14 May 1976 19957/76 Heading A1E Seedlings are grown in individual cells, each cell having downwardly directed grooves formed in its side walls for directing roots downwardly to an aperture in its base, air circulating beneath the base causing roots penetrating the aperture to wither (air pruning) and thereby encourage branching of the roots. In one embodiment a container is formed by members 51, 52 hinged together at 62 and each having shoulders 53, 54 co-operating with the shoulders of the other member to form a series of cells. Grooves 68, 69 direct roots vertically downwardly to the bottom of the cell. In the opened condition of the container slits 67 are provided between each hinge 62; when the container is erected the slits open to form large drainage and air pruning apertures. Each alternate shoulder has a rebate 55 formed along most of its length, with a short rebate 57 formed on the opposite side near the top, intervening shoulders, and corresponding shoulders of the opposite member, being oppositely rebated at 56, 58 so that the non-rebated portion of one shoulder engages the rebated portion of the opposite shoulder to form an interlocking shiplap joint preventing intermingling of the plant roots. To facilitate filling the cells with growing medium and to hold the containers erected, they are placed back-to-back in a box having a grid base, and during growth of the plants the boxes are raised above the ground to ensure air pruning. In modifications the members 51, 52 are formed with frictionally engaging stud-and-socket connections to maintain the container erected. The cells may be straight sided and be provided with a growing medium-retaining bar extending across the bottom which is otherwise open. The members 51, 52 may be formed separately instead of being hinged together. (From GB1535974 A)						
39.	Phi-4 polypeptides and methods for their use	CA2901316	2014-03-12	DUPONT PIONEER*	99 %	
Compositions and methods for controlling pests are provided. The methods involve transforming organisms with a nucleic acid sequence encoding an insecticidal protein. In particular, the nucleic acid sequences are useful for preparing plants and microorganisms that possess insecticidal activity. Thus, transformed bacteria, plants, plant cells, plant tissues and seeds are provided. Compositions are insecticidal nucleic acids and proteins of bacterial species. The sequences find use in the construction of expression vectors for subsequent transformation into organisms of interest, as probes for the isolation of other homologous (or partially homologous) genes. The insecticidal proteins find use in controlling, inhibiting growth or killing lepidopteran, coleopteran, dipteran, fungal, hemipteran, and nematode pest populations and for producing compositions with insecticidal activity.						
40.	Juvenile hormone or one of its agonists as a chemical ligand to control gene expression in plants by receptor mediated transactivation	WO9713864	1996-09-27	CIBA GEIGY NOVARTIS* SYNGENTA PARTICIPATIONS	99 %	
The present invention is drawn to a method of controlling gene expression in plants. Specifically, the method comprises transforming a plant with a USP receptor expression cassette which encodes a USP receptor and at least one target expression cassette which encodes a target polypeptide. Contacting said transformed plant with juvenile hormone or one of its agonists activates expression of the target polypeptide in the presence of said USP receptor polypeptide. Optionally, additional "secondary" receptor expression cassettes may be used, wherein the secondary receptor expression cassette encodes a receptor polypeptide distinct from USP. The method is useful for controlling various traits of agronomic importance, such as plant fertility. Also disclosed is a method of identifying previously unknown ligands for USP. Substances to be tested are identified by placing them in contact with plant cells transformed with a USP receptor expression cassette and a target expression cassette. The target expression cassette encodes a reporter polypeptide whose expression can be determined quantitatively or qualitatively, whereby the test substance is identified as a ligand for USP.						
41.	Method for the growth of plants and vessel for carrying out this method	DE2744143	1977-09-30	GRUBER B GRUBER BRUNO*	99 %	
The invention provides a process for the cultivation of plants with normal growth above the soil in a container, in which the roots of the plant, cuttings, seeds, bulbs or other plant material are surrounded by a container which has an opening in the direction of growth of the plant and is partly or completely perforated, the dimensions of the perforations of the container being chosen so that the roots are substantially smaller in relation to the normally cultivated plant, the container is partly or completely filled with nutrient substrate and is optionally partly or completely brought into contact with substrate or nutrient substrate and/or water and the plant is cultivated in known manner. The invention further provides containers for use in this process, the perforations in the containers having an area in the range 1.5 to 0.007 mm<2>. <IMAGE> (From GB2045044 A)						
42.	Hydroponic culture system, and plant factory provided with hydroponic culture system and greenhouse produced from styrene foam	CA2921310	2014-08-14	JAPAN TRADING JAPAN TSUSYO YK JAPANESE TRADE YG JAPAN TSUSYO YUGENKAISHA JAPAN TSUSYO* YUGENKAJSYA DZYPAN TSUSE	99 %	
In order to provide an efficient hydroponic culture system, the present invention provides a hydroponic culture system provided with: a plurality of water tanks which extend in a predetermined direction; a plant holding plate which holds plants and are disposed to extend over the plurality of water tanks; and at least one support mechanism which is provided between adjacent water tanks among the plurality of water tanks, wherein each of the plurality of water tanks is configured to contain a culture solution required to grow the plant, and the support mechanism supports the plant holding plate above the plurality of water tanks.						
43.	Plant aid, water collection sheet and method	NL1029216	2005-06-08	HOLDING P M M HOFF* P M M HOFF HOLDING P M M HOFF HOLDING B V PMM HOFF HOLDING	99 %	
The invention relates to a plant aid for surrounding a young plant. The plant aid (1) comprises a tube (2) at least partly sideways surrounding a young plant (3) placeable in the plant aid (1). The plant aid (1) further comprises a water collection sheet (8) for collecting moisture present in the atmosphere. The water collection sheet (8) comprises a water collection surface (9) comprising a receiving surface (10), which receiving surface (10) operatively makes a first angle with respect to the orientation of gravity. The water collection sheet (8) further comprises a collecting surface (11) adjoining a lower edge of the receiving surface (10), which collecting surface (11) operatively makes a second angle with respect to the orientation of gravity. The first angle is smaller than the second angle.						
44.	Interchangeable plant containers of plastics or plastics-covered steel or chrome nickel steel - can be set in similarly profiled frames with sloping sides and projecting support rim for stacking	DE4122519	1991-07-08	SCHMIDT ACHIM	99 %	
The plant container (1) has a supporting frame with upper sides (2) joined to lower sides (4) by a supporting and reinforcing rim (3). The base (5) has reinforcing ribs (7). The container (1) can be set in a similarly profiled supporting frame whose base is similarly reinforced with ribs, and so designed that the containers can be stacked inside one another. USE/ADVANTAGE - Plant containers can be handled manually and are used especially for pricking out.						

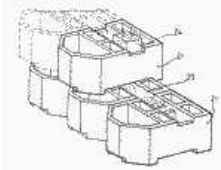
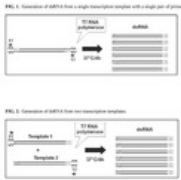
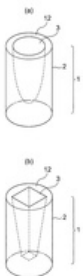
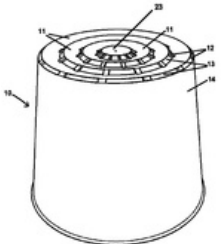
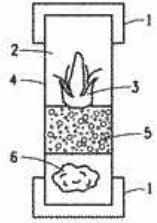
45.	Vertical plant cultivation closed system	CA3019752	2016-06-16	MANKA MANNACHAT*	98 %
A vertical plant cultivation closed system, the environment of the closed system can be controlled, the system has a growing space (1) that consists of 4 side walls and upper/lower walls. An environment control unit (2) controls light, temperature and air movement of the growing space (1). A tower pot (3) has plant root fixing points for fixing plant roots, multiple tower pots are arranged in vertical direction, a HOF (5) is set above at least one of the plant root fixing points on the tower pot (3).					
					
46.	Application of bio-based sulfonate as water-retaining agent and slow-release inhibitor in preparation of seedling hole tray and seedling hole tray	CN107114144	2017-05-27	NINGXIA UNIVERSITY*	98 %
The invention provides an application of bio-based sulfonate as a water-retaining agent and a slow-release inhibitor in preparation of a seedling hole tray. The bio-based sulfonate is prepared from cellulose sulfate monoester salt, hemicellulose sulfate monoester salt and lignosulfonate. The invention further provides the seedling hole tray prepared from the bio-based sulfonate. The seedling hole tray prepared from the bio-based sulfonate comprises paper pulp and the bio-based sulfonate, wherein the mass of the bio-based sulfonate accounts for 10-15% of total mass of the seedling hole tray.					
					
47.	Process for preparing a degradation resistant molded pulp horticultural container	NO920224	1991-10-07	CHINET* KEYES FIBRE KEYES FIBRE A CORPORATON OF DELAWARE* KIIZU FIBER	98 %
A horticultural container is disclosed which is composed of molded pulp fiber and which contains an organic thiocyanate microbicide, the container being resistant to degradation when exposed to soil burial or greenhouse conditions.					
48.	A cell and a tray for plant propagation	WO2013115689	2012-02-02	BJ RKEMAR CONSTRUCTION & CONSULTING BCC BJOERKEMAR CONSTRUCTION & CONSULTING BCC* BJÖRKEMAR CONSTRUCTION & CONSULTING BCC	98 %
A cell (1) for a seedling tray has a tubular body (2) with cell sides (3-6) forming an open upper end (7) and an at least partly open lower end (8) and cell corner portions (9-12) between each of said cell sides, whereby inwardly facing channels (13-16) extend along said cell sides from the upper end and to the lower end of the cell and are provided at least mainly outside a main plane (P3-P6) of the respective cell side. Trays for such cells are also provided.					
					
49.	Tray construction for growing plants	PT67176	1976-10-20	ITW - ILLINOIS TOOL WORKS*	98 %
A tray construction for growing plants in which the construction comprises a one-piece substantially rigid tray frame with a plurality of plant frames mounted in the tray frame to define a plurality of plant growing containers interconnected in a unitary assembly. The tray frame may be conveniently molded from a foamed thermoplastic material and essentially comprises a plurality of substantially rigid tubular members vertically aligned and integrally interconnected in a rectangular array of a plurality of adjacent rows. The open spaces between diagonally opposed tubular members permit air to pass between the upper and lower sides of the tray frame. The plant frames are preferably frictionally held within the tubular members, and each plant frame essentially comprises a base section and a plurality of ribs secured to the base section to upstand therefrom. Each of the plant frames is telescopically mounted in one of the tubular members with the base section in a spaced relationship with the lower end of the tubular member to provide drainage openings therebetween. The ribs extend upwardly within and against the inner walls of the tubular members.					
					
50.	Air-pruning tray/container matrix transfer and transplanting system and methods	CN1559195	2003-07-21	ZHU CHANG*	98 %
A system for transferring and transplanting plants from a plant supply tray includes a first table having a plurality of matrix openings for holding the plant supply tray, where one or more plants are removed from the tray via the matrix openings. The first table also includes an indexing frame that positions the plant supply tray such that the one or more plants from the plant supply tray are aligned with the plurality of matrix openings. The system also includes a second table that holds a plant receiving area, a supporting frame that holds and aligns the first and second tables relative to one another, and a plant removal mechanism for removing the one or more plants from the plant supply tray. The supporting frame positions the first table above the second table such that the supply tray is located above the plant receiving area and the one or more plants removed from the supply tray can be transferred directly to the plant receiving area on the second table via the plurality of matrix openings in the first table.					
					
51.	Functional expression of yeast nitrate transporter (ynt1) in maize to improve nitrate uptake	WO2011022608	2010-08-20	DUPONT PIONEER*	98 %
The present invention provides methods and compositions relating to altering NT activity, nitrogen utilization and/or uptake in plants. The invention relates to a method for the production of plants with maintained or increased yield under low or normal nitrogen fertility. The invention provides isolated nitrate transporter (NT) nucleic acids and their encoded proteins. The invention further provides recombinant expression cassettes, host cells, and transgenic plants. Plants transformed with nucleotide sequences encoding the NT enzyme show improved properties, for example, increased yield.					
					

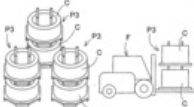
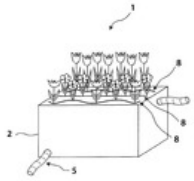
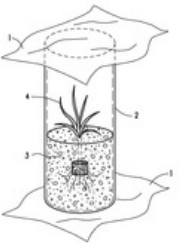
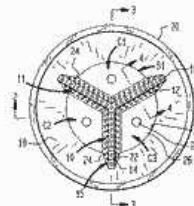
52.	Methods of increasing specific plants traits by over-expressing polypeptides in a plant	WO2018116164	2017-12-19	EVOGENE*	98 %	
Provided are isolated polypeptides which are at least 80% homologous to SEQ ID NOs: 2005, 1992-3040, isolated polynucleotides which are at least 80% identical to SEQ ID NOs: 138, 63, 50-1969, nucleic acid constructs comprising same, transgenic cells expressing same, transgenic plants expressing same and method of using same for increasing yield, abiotic stress tolerance, growth rate, biomass, vigor, oil content, photosynthetic capacity, seed yield, fiber yield, fiber quality, fiber length, and/or nitrogen use efficiency of a plant.						
53.	Plant containers and method of planting	GB8610926	1986-05-03	D W WATKINS* WATKINS TM D W	98 %	A container 1 for plants growing in open spaces such as pavements, car parks, is shaped so that the plant roots are constrained to grow downwardly. The container may be used inverted to carry the plant to the planting site in which case a removable floor is provided in the smaller diameter end of the container. Handles 4 are also provided. <IMAGE> 
54.	Use of flavonoid aldehydes as pesticides	WO9620596	1995-12-29	PROGUARD*	98 %	Methods and compositions based upon natural flavonoid aldehydes, including cinnamic aldehyde, alpha -hexyl cinnamic aldehyde, and coniferyl aldehyde are provided, which find use as pesticides. The compositions are effective against pathogenic fungi, arachnids and insects at concentrations which are not phytotoxic to the treated host plant. Infestations of a variety of plant parts can be treated, including those of leaves, seeds, seedlings, fruit, flowers and roots. Susceptible organisms include rust, powdery mildew, botrytis, phyloxera, aphids, thrips, codling moth, nematodes and leaf hoppers. $k = \sum_{p=0}^{N-1} (L^p)^p \cdot \left(\frac{pos_i \cdot p - p}{N} \right)$
55.	Methods of modulating stomata conductance and plant expression constructs for executing same	CA2860011	2012-12-11	ISRAEL MINISTRY OF AGRICULTURE & RURAL DEVELOPMENT ISRAEL NATIONAL AGRICULTURE DEPARTMENT RURAL DEVELOPMENT AGRICULTURAL RESEARCH ORGANIZATION VOLCANO CENTER ISRAEL STATE* JERUSALEM HEBREW UNIVERSITY ITALY SANG RESEARCH & DEVELOPMENT STATE OF ISRAEL MINISTRY OF AGRICULTURE & RURAL DEVELOPMENT AGRICULTURAL RESEARCH ORGANIZATIONTHE VOLCANI CENTER YISSUM RESEARCH DEVELOPMENT*	98 %	Plant expression construct are provided. According to an embodiment, the plant expression construct comprises a nucleic acid sequence encoding a hexokinase under a transcriptional control of a guard cell-specific cis-acting regulatory element. Also provided are methods of using the constructs and transgenic plants, plant cells and plant parts expressing same. 
56.	Container for growing a plant , growing method and clip for setting up the container	FR2770082	1997-10-23	NORTENE TECHNOLOGIES*	98 %	The invention concerns a container for growing a plant, comprising a broad base (2) and an open-work side wall. The invention also concerns a method for growing plants, which consists in: holding the plant with a clip stem downwards and roots upwards; inserting in the plant root system a container (1) with a broad base and an open-work side wall, the container being set on the plant root system such that the container opening with the smallest cross-section points downwards and the opening with the largest cross-section points upwards; filling the container with soil, the soil being prevented from dropping out of the container by the clip used for maintaining the stem down; mounting directly a base on the container top end; turning the plant and the container the right way up; setting down the plant and the container, the broad base of the latter pointing towards the ground. 
57.	Device for a vertical or angled arrangement of the hydroponic cultivation of plants	WO2011051619	2009-10-30	MODULOGREEN VERTICAL SOLUTIONS* MODULOGRIIN VERTIKAL SOLJUTIONS	98 %	The invention relates to a device for a vertical or angled arrangement of the hydroponic cultivation of plants (16), including at least one module (12) defining an inner space intended for containing at least one nutritional substrate and plants, said device being defined by a front wall (30) and a rear wall (35) secured to the front wall (30), at least the front wall (30) being provided with at least one opening (24) for plants to pass therethrough, and the front (30) and/or rear (35) wall comprising an attachment area for attaching the module (12) to a mounting (18). The front wall (30) and/or rear wall (35) comprises overlapping edges (41, 42) enabling, when the device is installed on a green roof or a green wall comprising at least two adjacent modules (12), the modules to overlap at least partially in the roof or the wall. 

58.	Ras opposite (rop) and related nucleic acid molecules that confer resistance to coleopteran and/or hemipteran pests	BR102014031844	2014-12-18	DOW AGROSCIENCES* FRAUNHOFER	98 %
This disclosure concerns nucleic acid molecules and methods of use thereof for control of coleopteran and/or hemipteran pests through RNA interference mediated inhibition of target coding and transcribed non coding sequences in coleopteran and/or hemipteran pests. The disclosure also concerns methods for making that express nucleic acid molecules useful for the control of coleopteran and/or hemipteran pests, and the plant cells and plants obtained thereby.					
 					
59.	Seed-starter cell and tray for starting plants	US20030233787	2002-06-20	HARTMAN GARY RAYMOND	98 %
A starter cell for starting a plant has a first opening at the topmost portion of the cell for facilitating plant seeding and growth, a second opening at the bottommost portion of the cell for facilitating root passage for air pruning of the root, and a plurality of inward-facing ridges formed vertically along the cell walls and along any cell corners. The cell is characterized in that the ridges are strategically placed to guide developing roots to avoid twisting and balling. In some embodiment the ridges have feet to provided for stacking, for example.					
					
60.	Genetic reduction of male fertility in plants	CA2867385	2013-03-12	DUPONT PIONEER*	98 %
Genetic male sterile plants are provided in which complementing constructs result in suppression of a parental phenotype in the progeny. Methods to generate and maintain such plants and methods of use of said plants, are provided, including use of parental plants to produce sterile plants for hybrid seed production.					
					
61.	Compositions and methods for controlling lepidoptera	CA2918387	2014-07-18	MONSANTO TECHNOLOGY*	98 %
Disclosed herein are methods of controlling insect pests, in particular <i>Leptinotarsa</i> spp. which infest crop plants, and methods of providing plants resistant to such pests. Also disclosed are polynucleotides and recombinant DNA molecules and constructs useful in such methods, insecticidal compositions such as topical sprays containing insecticidal double-stranded RNAs, and solanaceous plants with improved resistance to infestation by <i>Leptinotarsa</i> spp. Further disclosed are methods of selecting target genes for RNAi-mediated silencing and control of <i>Leptinotarsa</i> spp.					
					
62.	Plant cultivating container	CN1973606	2006-11-28	SUNTORY*	98 %
The present invention provides a plant cultivating container (14) comprising at least one receiver (3) for housing the roots of plants, and at least one water feeder (7) communicated with the receiver to allow water to be supplied to the plants via the water feeder. The plant cultivating container further comprises a through hole (7) that can function as the water feeder and is provided to a bottom part of the receiver, at least one float portion (13) capable of floating on a water surface, and the bottom part of the receiver being positioned below the water surface in a state in which the plant cultivating container is floated on the water surface by the float portion.					
					
63.	Apparatus for long term supply of a plant and cover for a container of such a device	DE102012024680	2012-12-18	BRAUN PETER MARCO	98 %
The device has a container (1) for mounting in a root portion of a plant. A wall limits the container downwardly as a container bottom (2) and laterally as a wall (3). An opening (4) lies opposite to the container bottom. Laterally outwardly projecting collecting sections (5) are provided at the container for receiving water, which is drained in a planting substrate. The collecting sections are designed planar and in groove-shape, shell shape or bowl shape. The collecting sections are spaced at a distance from each other in a sub region. The device is made of a biologically degradable material.					
 					
64.	Tubular container for plant culture and process and device for its manufacture	FR2621217	1987-10-06	ALPES PROVENCE GAEC PEPINIERES GROUPEMENT AGRICOLE D EXPLOITATION EN COMMUN DES PEPINIERES ALPES PROVENCE* GRP AGRICOLE D EXPLOIT EN COMM	98 %
Tubular container (1) for plant culture, comprising a sheet folded to form a tube, the two circumferentially end parts (3, 7) of said sheet overlapping and each having, for fixing purposes, projecting portions (22, 26) that fit or slot together, the projecting portions preferably being formed by rib(s) and groove(s) (22, 26) of corresponding shape that fit or slot together. Process and device for the manufacture of the abovementioned container, in which process and device the two circumferentially end parts of said sheet, having projecting portions, pass longitudinally between a press roll and a counter-roll. <IMAGE>					
					

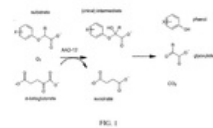
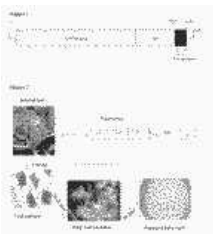
65.	Strawberry seedling culture tray	CN102726249	2012-06-29	BEIJING ACADEMY OF AGRICULTURE & FORESTRY SCIENCES* BEIJING WANDER AGRICULTURAL SCIENCE & TECHNOLOGY DEVELOPMENT*	98 %
The invention discloses a strawberry seedling culture tray, which comprises a trough body with the rectangular cross section, wherein the rectangular trough body comprises a trough bottom (1), two opposite long trough walls (2) and two opposite short trough walls (3), a plurality of through holes (4) are arranged on the trough bottom, a stripped bulge (6) with a groove (5) is respectively arranged at the upper edge of the two opposite short trough walls, the shape of one bulge is in embedded matching with an inner cavity of the other bulge, and a plurality of trays can be connected into a whole. The strawberry seedling culture tray provided by the invention can be used for the propagation production of strawberry creeping stem seedlings, and the placement and the management are convenient. Experiments prove that the young seedling emergence rate after the use of the strawberry seedling culture tray can reach 93.51 percent to 96.82 percent, the propagating factor can reach 1:39.7-1:77.8, the survival rate of the young transplanted seedlings can reach 96.7 to 98.4 percent, the strong seedling rate of the young transplanted seedlings can reach 87.7 to 93.1 percent, the values are respectively and obviously higher than those of a control group, the obtained young seedlings have the advantages that the flower bud differentiation is early, the seedling recovery is not needed after the fixed planting, the growth conditions are regular, the fruit setting is realized 30 days earlier, the yield is improved, and the economic benefits are obviously improved.					
66.	A plant development regulating gene and its uses	WO200238599	2001-11-13	CROPDESIGN UNIVERSITEIT UTRECHT*	98 %
The present invention is situated in the field of plant development. More specifically the invention relates to the identification and characterization of plant development regulating proteins (hbt, HOBBIT) required for correct plant development as well as to mutants thereof. The present invention thus relates to isolated nucleic acid sequences and protein sequences, and to vectors and host cells comprising said nucleic acid sequences. The invention further relates to transgenic cells and plants comprising and expressing said sequences and to methods for obtaining said cells and plants. The present invention further relates to the use of said wild type or mutant genes and proteins in methods to modify plant development. Said genes and proteins can furthermore be used in methods for mimicking or modifying auxin-related effects.					
67.	Methods involving genes encoding nucleoside diphosphatase kinase (ndk) polypeptides and homologs thereof for modifying the plant's root architecture	WO2009029739	2008-08-29	DU PONT DE NEMOURS* DUPONT PIONEER*	98 %
Isolated polynucleotides and polypeptides and recombinant DNA constructs particularly useful for altering root structure of plants, compositions (such as plants or seeds) comprising these recombinant DNA constructs, and methods utilizing these recombinant DNA constructs. The recombinant DNA construct comprises a polynucleotide operably linked to a promoter functional in a plant, wherein said polynucleotide encodes a polypeptide useful for altering plant root architecture.					
68.	Plant container assembly	WO9957961	1998-05-12	GARDEN SYSTEMS T KORT GARSY HERMAN VAN ROEY JAN VAN ROEY ROEY HERMAN VAN ROEY JAN VAN VAN ROEY JAN*	98 %
The present invention relates to an internal construction device for assembling a plant from a plurality of smaller plants, said device comprising a support pole (22) which extends in height direction of the construction, and a plurality of superimposed retainers (1, 11) applied around the support pole (22) and nested within each other, said retainers (1, 11) being provided for receiving dirt and plants, whereby a retainer (1) underneath comprises a side wall (2) and a top face (3) and a subsequent retainer (11) comprises a side wall (12) and a bottom face (14) with a surface area, said top face (3) of the retainer (1) underneath having a larger surface area than the bottom face (14) of the subsequent retainer (11), so as to create between the side walls (2, 12) of both retainers a space for receiving plants, whereby the retainer is a casing (1, 11) comprising a side wall (2, 12), a top face and bottom (3, 4, 13, 14), said top and bottom face being substantially open, and means (27) for connecting said casing (1, 11) to the support pole (22).					
69.	Plant container and plant wall	CN206728674	2017-03-13	LIU JIE	98 %
The utility model is suitable for a planting field provides a plant container and plant wall, and the plant container includes lateral wall and bottom, and lateral wall and bottom form the open cavity body, and lateral wall and bottom have through -hole a plurality of and open cavity body intercommunication. According to the automatic silicon steel sheet leveling machine of the transformer, through setting up a plurality of through -holes at lateral wall and bottom, it has the plant and to place into the soil when well to plant when the plant container, the root of the plant system goes back the accessible through -hole to the outer stretching growth of plant container after developing into the certain degree, because plant roots stretches out the part of through -hole to be belonged to comparatively unnecessary usually or influences little part to vegetation, the ablation that the user only needed to stretch out the through -hole with plant roots, can take out the plant container, it is damaged to need not anxious plant container, leak the emergence of the condition such as soil, in burying new soil with the plant container, can accomplish loosening the soil of plant, the soil removal and replacement, transplant, the transportation operation, which is simple and convenient, but and reuse, reduce the pollution of material waste and environment.					
70.	Plant cultivation apparatus	JP2015136356	2014-01-24	FUJITSU*	98 %
A plant cultivation apparatus (1), the apparatus including a cultivation rack (2) having a plurality of stages configured to accommodate cultivation trays (4) in which plants are hydroponically cultivated; liquid fertilizer hoses (8) configured to supply liquid fertilizers to the cultivation trays (4), the liquid fertilizer hoses (8) being extendable and having lower ends inserted in hose fitting holes formed in the cultivation trays (4); and attaching parts (12) configured to attach the liquid fertilizer hoses (8) to the cultivation rack (2).					

71.	Control and sensor systems for an environmentally controlled vertical farming system	US20180014485	2016-09-28	MJNN*	98 %
A computer implemented system for a vertical farming system comprising at least a first crop growth module and operating in an environmentally-controlled growing chamber, the control system comprising sensors for measuring environmental growing conditions in the environmentally-controlled growing chamber over time to generate environmental condition data, a device configured for measuring a crop characteristic of a crop grown in the crop growth module of the environmentally-controlled growing chamber to generate crop growth data and a processing device comprising software modules for receiving the environmental condition data and the crop growth data; applying an algorithm to the environmental condition data and the crop growth data to generate an improved environmental growing condition and generating instructions for adjustment of the environmental growing conditions in or around the growth module in the environmentally-controlled growing chamber to the improved environmental growing condition.					
					
72.	Improved container for plants	EP3192354	2016-01-18	VIDAL SANCHEZ IGNASI*	98 %
A container (100) is disclosed, which is intended to contain the soil for growing plants and root plants; said container (100) comprising a lateral wall (1) comprising a plurality of outward-extending protuberances (2) having a truncated pyramid shape with rectangular base, and provided with openings (20) shaped as a rectangle or an elongated slot to make it easier for the plant roots to come out of the container (100).					
					
73.	Method and apparatus for propagating plants	WO8803747	1987-08-10	WINGERDEN AART VAN	98 %
A method and apparatus for propagating plants wherein provision is made for aeration and drainage of the root plug with increased air flow to the upper or leafy parts of the plants extending across a growing tray in a predetermined pattern. Provision is also made for filling the compartments (A) of a growing tray with growing medium in a predetermined pattern to permit air flow across the tray from the bottom. Provision is also made to support strips (10, 11) forming a growing tray permitting horizontal movement of the strips as well as rows of compartments (A) containing the plants, and a shelf (18) is provided in the strips or partitions (10, 11) of the trays extending for a limited distance over a minor area of the compartments (A) to confine the growing medium within the trays while permitting insertion of a member (26a) for pushing the plant upwardly from the bottom out of the respective growing containers (A).					
					
74.	Container for plants	WO9426092	1994-05-13	DULVERRE*	97 %
A plant container having an upper opening to receive the plant, a base and at least one wall extending therebetween, the wall being of degradable material, an upper opening having a horizontal cross-sectional area which is less than the horizontal cross-sectional area of the base.					
					
75.	Genetic reduction of male fertility in plants	CA2867383	2013-03-12	DU PONT DE NEMOURS* DUPONT PIONEER*	97 %
Genetic male sterile plants are provided in which complementing constructs result in suppression of a parental phenotype in the progeny. Methods to generate and maintain such plants and methods of use of said plants, are provided, including use of parental plants to produce sterile plants for hybrid seed production.					
					
76.	Planting vessel for planting bonsai tree, has bars which are approached to exemption portion, and attached with vessel wall and bottom portion, such that root chambers are formed to divide planting vessel	DE102014100971	2013-02-01	PÖTSCHER WALTER	97 %
The planting vessel (1) has a bottom portion (3) which is provided with an opening (4). A vessel wall (2) is projected from bottom portion. Bars (5,6) are extended between vessel wall and bottom portion to form a guide for growth of root of a plant. An exemption portion (7) is opened towards root of plant. The bars are approached to exemption portion, and attached with vessel wall and bottom portion, such that root chambers (8) are formed to divide the planting vessel.					
					

77.	Retaining wall to be provided with vegetation presenting cells for use as a disposable shuttering.	EP0362110	1989-09-12	ROSSI JEAN LOUIS	97 %	
78.	Rna polymerase ii33 nucleic acid molecules to control insect pests	BR102016005404	2016-03-11	DOW AGROSCIENCES* FRAUNHOFER*	97 %	
79.	Apertured fibrous structures and methods for making same	CA2961579	2015-10-05	PROCTER & GAMBLE*	97 %	
80.	Filled soil block for cultivation, plant cultivation method, and soil block-cultivated plant	JP5525666	2013-08-22	KUDO TETSUYA	97 %	
81.	Container for cultivating plants	CN202035327	2011-04-15	YANG WEIPING	97 %	
82.	Plant artificial seeds and methods for the production thereof	BR102012032801	2012-12-20	BSES DU PONT DE NEMOURS* E AI DUPONT DE NAMUR S S & PEET CBS ABC SUGAR RESEARCH AUSTRALIA	97 %	

83.	Coil-like transport subject pallet, structure for loading coil-like transport subject onto pallet, and method for transporting coil-like transport subject	WO2004069672	2003-02-07	TOYODA SUCHIIRUSENTAA TOYOTA STEEL CENTER*	97 %
This invention intends to provide a coiled carrying article pallet, which is suited for transporting small quantities of varied types of articles, which can easily, deliberately, efficiently transporting a coiled carrying article to a transport receptacle without damaging the coiled transport article, which can transport the coiled carrying article with transport cost being held down, and which can improve space efficiency for storage, and the like. The pallet P1 is a coiled carrying article pallet P1 contained in a transport receptacle (container A) while loading the coiled carrying article C, the pallet P1 including a pallet main body 1, and a stack support means 5, provided on the pallet main body, for vertically stacking and supporting another pallet P1, and the pallet main body 1 includes a mount section 3 on which the axial end face of the carrying article can be mounted, and an abutment section 2 provided on an outer peripheral side of the mount section and arranging a plurality of carrying articles in a zigzag fashion. <IMAGE> 					
84.	Container for supplying plant roots with nutrient solution without the use of soil	CA2937507	2015-01-23	Clemens Elbach	97 %
A container (1) for supplying plant roots with nutrient solution without the use of soil has a basic shape which is selected from the group of basic shapes comprising cubes, cuboids, ellipsoids, spheres, rings, pyramids, cones, prisms and cylinders as well as combinations and parts of these shapes and asymmetrical shapes. The container (1) has an interior, which is provided for accommodating the plant roots, and a separating slot (8), which is arranged at a boundary of the container interior and is designed to subject at least one plant to clamping-in action, while at the same time allowing said plant to grow. 					
85.	Plant artificial seeds having multilayers and methods for the production thereof	BR102012032803	2012-12-20	B SES BSES DU PONT DE NEMOURS*	97 %
Composition and method for preparing artificial seeds of plantlets that can be developed into grown plants for propagation in the field are disclosed. In one embodiment, the artificial seeds are developed in degradable containers. The disclosed methods also allow for rapid propagation of in demand plants, such as sugarcane, to meet the ever increasing global demand for this plant. 					
86.	Plant gene expression	PT78414	1984-04-06	AGRIGENETICS LUBRIZOL GENETICS MAIKOJEN PURANTO SAIENSU MAIKOJEN PLANT SCIENTIFIC MYCOGEN PLANT SCIENCE*	97 %
There is provided a DNA shuttle vector comprising T-DNA having inserted therein a plant gene comprising a plant promoter and a plant structural gene, the plant promoter being adjacent to the 5 min -end of the plant structural gene and the plant structural gene being downstream from the plant promoter in the direction of transcription. 					
87.	Root separating means for plant container	US5040330	1990-06-11	BELGIORNO CARLO	97 %
A root separator structure adapted for disposition in a container having peripheral walls to facilitate insertion of the root system of a plant into and removal from the container, to hold the plant stably in the container, and to enhance root growth in the container. The structure has a shell-like body with coplanar radial arms defining compartments in the container. The radial arms terminate in steps elevated above the plane of the arms, to contact and hold the root system of the plant in upright position. The steps have inclined faces which help guide the root system into and out of the container. The steps can be integrally joined to the peripheral walls, or the body can be separate to the removed from the container with the plant to facilitate spreading the divided root clumps. 					
88.	Container for planting and growing vegetable plants	FR2829357	2001-09-07	ALLIANCE 47*	97 %
The invention relates to a container (10) for planting and growing vegetable plants in a growth medium. The inventive container comprises a multi-panel cover (12-18) and a base. The container is characterised in that it comprises a thin sheet of hydrophobic material on the two walls of each panel and the base. Moreover, the container is designed to receive a mark by means of printing on at least one of said panels. 					

89.	Vertical plant cultivation system	WO2015123725	2015-02-20	HORTICULTURAL INNOVATIONS*	97 %
The invention provides a vertical plant cultivation system utilising aeroponics. The system comprises a shell having an external surface, a vertically extending internal chamber, and plant support apertures extending through external surface to the internal chamber, each aperture formed and arranged to support a plant therein with the plant foliage extending from the external surface and the plant roots extending into the internal chamber. A water reservoir is provided in a lower portion of the internal chamber to hold water and nutrient solution. A least one mist generator module floats within water in the reservoir and generate mist from water within the reservoir. At least one mist circulation module is supported within the internal chamber to cause mist generated by the mist generator module to move upwardly through the plant roots in the internal chamber.					
90.	Container in which plant such as flower grows up well, and requiring less watering	JP2004041193	2003-05-06	Kazuhiro Hanada; Aichi Prefecture Ichinomiya City Yamato-cho Mamakamiji letter 1 2 1	97 %
PROBLEM TO BE SOLVED: To provide a container having a structure capable of quickly transferring from nutrition growth for breeding seedlings to reproductive growth for blooming by using a culturing method or procedures the same as those of the conventional culturing container capable of shortening a time from the transplantation of the seedlings to blooming by less than the conventional culturing time. SOLUTION: This container is constituted by standing an inner pot from the bottom surface in a culturing container for culturing a plant in vertical direction, forming in a plurality of root-housing chambers divided by partitioning plates standing vertically in the inner pot and arranging the root-housing chambers at the positions capable of housing the root parts elongating accompanying with the growth of the root parts as a spiral state so as to have a sufficient volume of the chambers capable of housing the elongated root parts. COPYRIGHT: (C)2004,JPO					
91.	Isolated polynucleotides, polypeptides and methods of using same for increasing abiotic stress tolerance, biomass and yield of plants	CA2948591	2015-05-27	EOGENE*	97 %
Provided are isolated polypeptides which are at least 80% homologous to SEQ ID NOs: 552-897 and 6029-10629, isolated polynucleotides which are at least 80% identical to SEQ ID NOs: 1-551 and 898-6028, nucleic acid constructs comprising same, transgenic cells expressing same, transgenic plants expressing same and method of using same for increasing yield, abiotic stress tolerance, growth rate, biomass, vigor, oil content, photosynthetic capacity, seed yield, fiber yield, fiber quality, fiber length, and/or nitrogen use efficiency of a plant.					
92.	Carrots having increased lycopene content	WO2008049071	2007-10-18	SEMINIS VEGETABLE SEEDS*	97 %
The present invention relates to carrot lines having roots containing increased levels of lycopene, as well as containers of such carrots. The present invention also relates to parts of carrot plants from lines having roots with increased lycopene content, including seeds capable of growing carrot plants with increased root lycopene content. The invention also provides seed and plants of the carrot lines designated RN 71-4904C, RF 71-4911A, RF 71-4912A, RIF 71-4966C, RIF 71-4967B, or RIF 71-4968B. The invention thus relates to the plants, seeds and tissue cultures of carrot line RN 71-4904C, RF 71-4911A, RF 71-4912A, RIF 71-4966C, RIF 71-4967B, or RIF 71-4968B, and to methods for producing a carrot plant produced by crossing a plant of carrot line RN 71-4904C, RF 71-4911A, RF 71-4912A, RIF 71-4966C, RIF 71-4967B, or RIF 71-4968B with itself or with another carrot plant, such as a plant of another line. The invention further relates to seeds and plants produced by such crossing. The invention further relates to parts of a plant of carrot line RN 71-4904C, RF 71-4911A, RF 71-4912A, RIF 71-4966C, RIF 71-4967B, or RIF 71-4968B, including the fruit and gametes of such plants.					
93.	Apparatus for growing, planting and transplanting plants	WO9732465	1996-03-07	WINSTRIP*	97 %
A container or tray (10) for growing, planting and transplanting plants, which has a plurality of growing compartments (13) arranged in adjacent rows (12). Each growing compartment (13) is formed by four walls (14, 16, 18, 20). An air opening (24) is located adjacent to each wall (14, 16, 18, 20) of each growing compartment (13). The walls (14, 16, 18, 20) of the growing compartments (13) are offset at a non-right angle with respect to the major axis of the tray. Air slits (50, 52) are formed in the walls of the growing compartments (13). The bottoms of the growing compartments (13) have openings (40), each with a pair of ledges (42, 44) adjacent thereto so that the root ball of the plates may be aerated while holding the plants within the growing compartment (13). The center-to-center spacing between adjacent growing compartments (13) is the same throughout the tray (10).					
94.	Plant root characterization system	US20060207172	2005-03-17	PHENOTYPE SCREENING*	97 %
An apparatus and method for nondestructively acquiring images of a plant root system is described. The apparatus includes a substrate for supporting the plant root system, a container for holding the substrate, an x-ray radiation source for generating x-ray radiation and directing the radiation to pass through the plant root system, and an x-ray image capture system for receiving the x-ray radiation having passed through the plant root system and for generating an image of the plant root system based on the radiation. The x-ray radiation source generates x-ray radiation having an energy level in the range of about 8 keV to about 20 keV. In this energy range, the attenuation of the x-ray radiation due to air is minimized and the contrast between the root system and the container and substrate is sufficiently high to provide a resolvable image. The substrate and container are preferably formed of materials having a low mass density, such as less than about 3 pounds per cubic foot, and a low x-ray mass attenuation coefficient. The low density materials of the substrate and the container introduce comparatively low attenuation of the x-ray radiation when compared to the attenuation introduced by the roots, thereby enhancing the visibility of the root system in the image.					

95.	Methods of improving the yield of 2,4-d resistant crop plants	BR102013013974	2013-06-04	DOW AGROSCIENCES*	97 %
This invention is related to methods for improving plant height and/or yield of crop plants which are resistant to herbicide 2,4-D by treating the plants with 2,4-D at application rates which are not harmful to the plants . In particular, provided is a method using 2,4-D application to increase yield of crop plants which express AAD-12 gene for 2,4-D resistance. The method provided is of particular interest for the treatment of crops plants including maize, soybean, spring and winter oil seed rape (canola), sugar beet, wheat, sunflower, barley, and rice.					
96.	Isolated polynucleotides and polypeptides, and methods of using same for increasing plant yield and/or agricultural characteristics	CA2916060	2014-08-26	EVOGENE*	97 %
Provided are isolated polypeptides which are at least 80% homologous to SEQ ID NOs: 710-1153 and 9276-15726, isolated polynucleotides which are at least 80% identical to SEQ ID NOs: 1-709 and 1157-9275, nucleic acid constructs comprising same, transgenic cells expressing same, transgenic plants expressing same and method of using same for increasing yield, abiotic stress tolerance, growth rate, biomass, vigor, oil content, photosynthetic capacity, seed yield, fiber yield, fiber quality, fiber length, and/or nitrogen use efficiency of a plant .					
97.	Production of foreign nucleic acids and polypeptides in plant systems	WO2007095304	2007-02-13	FRAUNHOFER IBIO*	97 %
The present invention provides systems and methods for producing a nucleic acid or protein in young plants . Typically, the young plants are grown in a contained, regulatable environment. In some embodiments, expression of a pharmaceutically active protein in the young plants is controlled by an exogenously inducible promoter or a viral promoter. In some embodiments, the young plants are edible and may be eaten live or preferably harvested live to preserve the maximal biological activity of the nucleic acid or protein. In some embodiments, the young plant is a young pea plant or a young Nicotiana plant .					
98.	Aeroponics system with rack and tray	US20180042191	2016-11-11	EZ CLONE ENTERPRISES*	97 %
An aeroponics system is provided which includes a rack with multiple shelves thereon and with a tray accommodated on each shelf. Light modules are located above each shelf. Each tray has a hood with openings therein leading into a hollow chamber and above a base which includes spray heads therein. Water from a reservoir upon the rack is pumped to each of the spray heads to provide a spray within the hollow chambers. Plant cuttings are placed passing through the openings in the hood so that lower portions of the cuttings can receive the spray (and nutrients added into the reservoir) for propagation of the plant cuttings .					
99.	Manipulation of serine/threonine protein phosphatases for crop improvement	CA2877892	2013-06-25	DUPONT PIONEER*	97 %
Methods and compositions relating to altering nitrogen utilization and/or uptake or yield in plants . Recombinant expression cassettes, host cells and transgenic plants are described. Serine-threonine protein phosphatases improve agronomic traits of a crop plant .					
100.	Apparatus for providing growth environment for plant	WO2007060732	2005-11-25	KAWADA CONSTRUCTION TOKYU KENSETSU*	97 %
It is intended to provide growth environment for a plant such as a greening plant or an agricultural crop at a low cost by enabling the utilization of seawater and sewage water in watering the plant which is grown in a soil layer without resorting any treatment for removing salt from the seawater or harmful matters from the sewage water. Namely, an apparatus for providing growth environment for a plant comprising: a soil layer (7) for growing the plant ; a water-retention material (9), which is contained in the above-described soil layer and/or layered thereon, for retaining water required for the growth of the plant grown in the above-described soil layer; a soil layer-supporting part (4) having a supporting face for supporting the above-described soil layer and the above-described water-retention material and water grooves for supplying water required for the growth of the plant grown in the above-described soil layer and discharging excessive water; and a water-supply part (5) having a water-supply channel (6) for supplying the seawater or the sewage water into the inner part and a water-discharge channel (6) for discharging the seawater or the sewage water contained in the inner part so as to give an upper space connected to the above-described water channel on the surface of the seawater or the sewage water.					