

Monsanto's Patents: A List of seed monopolies

Monsanto and its associated companies have well over a thousand patents, a lot of them on seeds. Calgene has applied for nearly 500 patents, Asgrow Seed Co. claims about 265 US patents, and DeKalb lists about 300 patents.

Greenpeace is following especially patent applications in Europe (with the help of „No Patents on Life!“, Germany). Below is a list of some patents applied and granted in Europe to Monsanto, Calgene and some other companies in the Monsanto imperium. Monsanto has applied for more than 100 patents on seeds in Europe, and about two dozen have already been granted.

A) Some patents granted

EP 546090 B1 19960619 WO 9204449

Title: Glyphosate tolerant 5-enolpyruvylshikimate-3-phosphate synthase

Proprietor: Monsanto

Specials: Glyphosate tolerant plant; method of planting and of applying herbicide.

Opposition by Greenpeace, No patents on Life and Syngenta

EP 634491 B1 20000524

Title: Modified oil content in seeds

Proprietor: Monsanto

Specials: Method of producing plant seeds, wherein plant is wheat, canola, soybean, corn, cotton, sunflower, almond, cashew, pecan, walnut, peanut.

EP 269601 B2 20000712

Title: Insect-resistant tomato plants

Proprietor: Monsanto Comp.

Specials: A differentiated tomato plant.

Opposition: Agrigenetics

EP 426641 B1 20000913

Title: Promoter for transgenic plants

Proprietor: Monsanto

Specials: Chimeric gene, transgenic plant, seed: soybean, alfalfa, oilseed rape, flax, sunflower, sugar beet.

EP 430511 B1 20010207

Title: Soybean plants resistant to glutamine synthase inhibitors

Proprietor: Monsanto Comp.

Specials: Soybean plant resistant to the herbicide. A soybean plant that is not a plant variety. Seeds of the plant.

EP 495096 B1 20010328 WO 9203564

Title: Plant fatty acid synthase

Proprietor: Calgene LLC

Specials: DNA, methods of modifying fatty acid composition in a plant cell, wherein the plant is rapeseed, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm, corn. Method for producing plant seed oil.

EP 539563 B1 20011017 WO 9220809

Title: Method of creating a transformed rice plant

Proprietor: Monsanto Technology LLC

Specials: Method of creating a transformed rice plant by bombarding the rice embryo or the meristem disc. Method for Indica and Japonica variety.

152. EP 429538 B1 20011107 WO 9002172

Title: Plant elongation factor, promoters, coding sequences and uses

Proprietor: Calgene LLC

Specials: Modification of plant phenotype by preferential transcription in specific tissue. DNA, DNA construct; plant, tomato; plant which is other than an individual member of a "plant variety".

EP 316441 B1 20011205 WO 8809334

Title: Fruit specific transcriptional factors

Proprietor: Calgene LLC

Specials: DNA construct comprising a fruit specific initiation region. Plant, fruit, tomato.

EP 255378 B2 20020206

Title: Seed specific transcriptional regulation

Applicant: Calgene LLC

Specials: DNA (napin or mammalian DNA or mammalian viral DNA) construct; method of modifying genotype and phenotype of a plant or seed; plant cell, wherein said cell or seed is from a plant (Brassica, cotton, soybean, safflower, sunflower)

EP 536330 B1 20020227 WO 9200377

Title: Glyphosat tolerant plants

Applicant: Monsanto Technology LLC

Specials: DNA of glyphosate oxidoreductase. Glyphosate tolerant plant consisting of corn, wheat, rice, soybean, cotton, sugar beet, oilseed rape, flax, ...lettuce, apple popular, pine. Method of planting, applying herbicide.

EP 445929 B1 20030521

Title: Plants

Proprietor: Monsanto Technology LLC (GB)

Specials: Soft milling wheat with reduced HMW glutenin, inactive Glu-D1 genes; flour, dough, edible products, biscuits or the like. GE? Characterized grains by gene loci.

Opposition: Greenpeace, Comité des Organisation Agricoles de l'Union européenne (COPA + COGECA), "Kein Patent auf Leben!"; Groupement des Associations Meunière de l'UE (GAM) ; revocation of patent

EP 531506 B1 19981216 WO 92/15675

Title: Particle mediated transformation of cotton

Proprietor: Agracetus Inc. (US) to Monsanto

Specials: Patent granted in 1998. Method of creating transgenic lines of cotton plants using Gus gene as marker; method of generating transgenic tissue of a plant.

EP 480024 B1 20030625 WO 91/016421

Title: DNA encoding plant thioesterases

Proprietor: Calgene LLC (US)

Specials: DNA construct; method of modifying fatty acids in a plant, in oilseed crops; plant seed, oilseed (rapeseed, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm, corn).

Opposition: Syngenta.

EP 289479 B2 20030910 Div. application EP 731170

Title: Insect-resistant plants

Proprietor: Monsanto Company (US)

Specials: Chimeric gene comprising Bt gene; method for producing transgenic plant; transformed plant, seed; substantially pure toxin.

Opposition: Pioneer.

EP 994650 B1 20040225 WO 99/000013

Title: Micro particles containing agricultural active ingredients

Proprietor: Monsanto (US)

Specials: A controlled-release composition for delivering an agricultural chemical to a plant; a seed comprising a seed coating. No GE.

EP 942985 B1 20040915 WO 98/022595

Title: Broad-spectrum delta-endotoxins

Proprietor: Monsanto Technology LLC (US)

Specials: Bt-DNA; host cell; peptide; use of peptide in a plant protective spray formulation; transgenic plant, seed.

B) Some patent applications

EP 929686 A1 19990721 WO 9808962

Title: Early seed 5' regulatory sequence

Applicant: Monsanto Company

Specials: DNA regulatory sequence controlling seed development; plant.

State of procedure: in examination

EP 942971 A2 19990922 WO 9826064

Title: Method for altering the nutritional content of plant seed

Applicant: DeKalb Genetics Corp.

Specials: Plant, maize with increased or decreased starch content. Increased amount of starch extractability along with decreased amount of seed storage protein.

State of procedure: in examination

EP 975778 A1 20000202 WO 9844140

Title: Glyphosate resistant maize lines

Applicant: DeKalb Genetics Corp.

Specials: Method to increase yield, to produce feed, human food, oil, starch; maize plant, progeny, seeds. Inbreds and hybrids. Method on other crops as rice, wheat, sorghum, soybean.

State of procedure: in examination

WO 0009721 A1 20000224 EP 1104477

Title: Increasing stearate content in soybean oil by expression of acyl-ACP thioesterase

Applicant: Calgene LLC

Specials: Change of fat quality of soybean. Soybean plant, seed, seed oil, oil-based edible spread, frying oil, cacao butter substitute, soy milk, tofu, flour.

State of procedure: request for examination

WO 0011185 A2 20000302 EP 1121440

Title: Improved expression of CRY3B insecticidal protein in plants

Applicant: Monsanto Co.

Specials: Bt delta-endotoxin. Plant (monocot, dicot; corn, wheat, barley, rice, oats, grasses, bananas); seed; plant germinated from the seed.

State of procedure: in examination

WO 0018963 20000406

Title: Methods for breeding and for screening of soybean plants with enhanced yields, and soybean plants with enhanced yields

Applicant: Monsanto

Specials: Breeding and crossing of different soybean lines; DNA, plant (alfalfa, rye, soybean, sorghum, strawberry, fir, lentils, banana, oil palm,...).

WO 0061771 A2 20001019 EP 1169462

Title: Transgenic plants containing altered levels of sterol compounds and tocopherols

Applicant: Monsanto Comp.

Specials: Improved nutritional properties. Gene-construct, DNA and protein; plant, seed, progeny. Oil, food, food ingredient, feed. Pharmaceutical composition. Method of lowering lipoprotein in blood, of treating, preventing such disease.

State of procedure: in examination

WO 0066742 A2 20001109 EP 1173578

Title: Coleopteran-toxic polypeptide compositions and insect-resistant transgenic plants

Applicant: Monsanto Comp.

Specials: DNA, polypeptide (delta-endotoxin) from *B. thuringiensis*. Transgenic plant: monocot (corn, wheat, rice, grass...), dicot (legume, soybean, fruit, berry, vegetable, tree...). Progeny, seed.

WO 0109296 A1 20010208 EP 1218497

Title: Nucleic acid sequences encoding polyenoic fatty acid isomers and uses thereof

Applicant: Monsanto

Specials: Method of producing increased conjugated fatty acids as food and feed oil, having nutritional benefit. DNA from algae. Non-human organism (bacteria, insect, fungus, algae, mammals), esp. plants.

EP 1103616 A2 20010530 EP 413019

Title: Synthetic plant genes and method for preparation

Applicant: Monsanto Comp.

Specials: Method for improving expression of a heterologous gene in plants by reducing the poly A signals at the end of the gene. A Bt insecticidal gene. Transformed plant, seed.

State of procedure: request for examination

EP 1117814 A1 20010725 WO 0015810

Title: Isoforms of starch branching enzyme II (SBE-IIA and SBE-IIB) from wheat

Applicant: Monsanto UK Ltd.

Specials: Plant DNA; transgenic plant, progeny, wheat; a storage organ, starch, use of starch; foodstuff, bakery product.

State of procedure: in examination

WO 0166780 A2 20010913

Title: Homologous recombination-mediated transgene alterations in plants

Applicant: DeKalb Genetics Corp.

Specials: Method of excision, modification or amplification of transgene DNA. Transgenic monocots, e.g. sorghum, rye, rice, and dicots, seeds. Fertile, inbred, hybrid plants and progeny.

State of procedure: dead since 2003

EP 1159435 A1 20011205 WO 0052183

Title: Multigene expression vectors for the biosynthesis of products via multienzyme biological pathway

Applicant: Monsanto Technology LLC

Specials: DNA complex of 3 to 4 genes. Transgenic plant producing polyhydroxyalkanoate (PHA). Plants as tobacco, wheat, potato, Arabidopsis, corn, canola, oil seed rape, sunflower, flax, peanut, sugar cane, switchgrass, alfalfa.

State of procedure: in examination

WO 0227004 A2 20020404 EP 1322773

Title: Glyphosate tolerant wheat plant 33391 and compositions and methods for detection thereof

Applicant: Monsanto Technology LLC

Specials: Method of improving glyphosate tolerance in a wheat plant; DNA construct referring tolerance and useful as marker for breeding. Wheat seed, plant. Method for controlling weeds by planting wheat 33391 and applying glyphosate.

State of procedure: request for examination

WO 02064803 A2 20020822

Title: Identification of seeds of plants using phenotypic markers

Applicant: Monsanto (US)

Specials: Markers for identifying traits, allowing collection of fees for proprietary traits! Plant seed mixture, soybean, canola, wheat. Method of using marker: planting, harvesting, taking sample, determining amount; method for recovering licensing fees from farmer.

WO 02089561 A1 20021114 EP 1392106

Title: Tyra genes and uses thereof

Applicant: Monsanto (US)

Specials: Tocopherol content enhancement. DNA (promoter + enzyme encoding gene), transformed plant (canola, maize, soybean, mustard, castor bean, peanut, sesame, linseed, oil palm, flax,...) exhibiting increased or reduced tocopherol level; oil derived from seed.

State of procedure: request for examination

EP 1261695 A2 20021204 WO 01066704

Title: Methods for making plants tolerant to glyphosate and compositions thereof

Applicant: Monsanto Technology LLC (US)

Specials: DNA (EPSPS enzyme); method of producing plants; glyphosate tolerant plant: corn, wheat, rice, millet, sugar cane,...forest trees, ornamental plants; seed.

State of procedure: in examination, will soon be granted

WO 02100163 A2 20021219 EP 1406482

Title: Cotton event MON15985 and compositions and methods for detection

Applicant: Monsanto Techn. LLC (US)

Specials: Insect resistant cotton plant wherein DNA has MON 15985 included; descendant plant, seed; method for producing an insect resistant cotton plant comprising breeding, using the DNA-marker-sequence. DNA (from cotton); method of detecting the DNA sequence.

State of procedure: request for examination

EP 1274850 A2 20030115 WO 01/079472

Title: Nucleic acid sequences to proteins involved in tocopherol synthesis

Applicant: Calgene LLC (US)

Specials: DNA encoding tocopherol cycles from many sources (plants, animals, fungi); plant, feed composition; seed, oil, refined oil.

State of procedure: in examination

WO 03/003816 A2 20030116 EP 1404850

Title: Methods for enhancing segregation of transgenes in plants and compositions thereof

Applicant: Monsanto Technology LLC (US)

Specials: DNA construct comprising a conditional lethal gene (to provide transgenic plants free of the marker transgenes); DNA plasmid; just methods, no plants claimed.

State of procedure: request for examination

WO 03/014348 A1 20030220

Title: DNA molecules from maize and methods of use thereof

Applicant: Monsanto (US)

Specials: Plant DNA (and 90% homology) for control of gene expression; transgenic plant (disease, herbicide, stress resistant) seed.

WO 03/020016 A2 20030313 EP 1440151

Title: Seed specific 7S alpha promoter for expressing genes in plants

Applicant: Monsanto Technology LLC (US)

Specials: Transgenic plant (canola, cabbage, mustard, linseed, soybean, millet, grasses, rice, banana, apple, liliacea, eucalyptus, coffee, yam,...), DNA; nutritional enhancement.

State of procedure: request for examination

WO 03/034812 A2 20030501 EP 1444348

Title: Aromatic methyltransferases and uses thereof

Applicant: Monsanto Technology LLC (US)

Specials: Plant polypeptide, DNA; transgenic plant (rice, rye, garlic, ornamentals, peanut, pepper, flax, sorghum, strawberry, pine, fir, apple, oil palm,...) exhibiting increased gamma-tocopherol content; seed; oil, animal feed.

State of procedure: request for examination

WO 03092361 A2 20031113

Title: Temporal seed promoters for expressing genes in plants

Applicant: Monsanto Technology, LLC (US)

Specials: Change of composition of seed and method of controlling germination. DNA; transgenic plant (canola, mustard, sesame, rice, sorghum, millet, banana, trees, ornamentals, ..); meal, feedstock, oil; seed.

WO 03092363 A2 20031113

Title: Transgenic high tryptophan plants

Applicant: Monsanto (US)

Specials: Change of tryptophan content of a plant. DNA (from plant or bacteria) ; transgenic plant; method for making animal feed or human food; feed or food.

WO 03096797 A2 20031127 EP 1504106

Title: Method of increasing plant organ and seed size in a plant

Applicant: Monsanto (US)

Specials: Method of increasing seed and organ size; transgenic plant (rice, sorghum, pine, apple, yams, zucchini, figs, tangerine, tea,...), progeny.

State of procedure: request for examination

WO 03103377 A2 20031218 EP 1513393

Title: Methods and compositions for production of maize lines with increased transformability

Applicant: Monsanto Technology LLC (US)

Specials: Method for producing transformable corn line; seed, progeny; transgenic corn plant, hybrid corn seed; method of producing progeny plant.

State of procedure: request for examination

EP 1381267 A2 20040121 WO 2002061072

Title: Transgenic plants containing altered levels of steroid compounds

Applicant: Monsanto Technology LLC (US)

Specials: DNA-construct; transgenic plant, seed, progeny; storage organ; process of producing steroids, wherein plants are canola, soybean, peanut, oil palm, cuphea, ...; oil, sitosterol; food, pharmaceutical composition; method of treating humans and making food.

State of procedure: request for examination

WO 2004006659 A1 20040122

Title: High yielding soybean plants with increased seed protein plus oil

Applicant: Monsanto (US)

Specials: Soybean plant with high protein and high oil content. Plant, seed; method of crossing; method of producing food, meal, feed, oil, flour or a product for industrial use. No GE.

WO 2004020636 A1 20040311

Title: Nucleotide sequences encoding Cry1Bb proteins for enhanced expression in plants

Applicant: Monsanto (US)

Specials: DNA encoding insecticidal protein; transgenic plant, seed, progeny; method for producing transgenic plant expressing Cry1Bb for resistance against lepidoptera insects; composition comprising Cry1Bb; extract from corn plant.

EP 1421196 A2 20040526 WO 2003020937

Title: Rice regulatory sequences for gene expression in defined wheat tissue

Applicant: Monsanto UK Ltd. (GB)

Specials: DNA sequences of wheat and rice, regulatory sequences; transgenic plant, progeny; method of producing plant.

EP 1484959 A2 20041215 WO 2003080802

Title: Nucleic acid constructs and methods for producing altered seed oil compositions

Applicant: Monsanto Technology LLC (US)

Specials: Soybean seed (no GE) exhibiting a changed oil composition; oil, meal; transgenic soybean plant; feedstock, seed; method of altering oil composition of a plant cell by GE; DNA.

State of procedure: request for examination