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Mehlenbacher et al.

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(54) ***CORYLUS* PLANT NAMED 'FELIX'**

(50) Latin Name: ***Corylus avellana***
Varietal Denomination: **Felix**

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USPC Plt./152
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(74) *Attorney, Agent, or Firm* — Klarquist Sparkman, LLP

(57) **ABSTRACT**

A new and distinct cultivar of *Corylus* plant named 'Felix' characterized by an upright plant habit and high vigor, green developing and fully expanded leaves during the spring and summer, resistance to eastern filbert blight caused by the fungus *Anisogramma anomala* (Peck) E. Wüller, presence of random amplified polymorphic DNA markers 152-800 and AA12-850, expression of incompatibility alleles S_{15} and S_{21} in the styles, and DNA fingerprints at 14 of 24 microsatellite marker loci differ from both parents OSU 384.095 and 'Delta', and from one parent at an additional 6 marker loci.

5 Drawing Sheets

ACKNOWLEDGMENT OF GOVERNMENT SUPPORT

This invention was made with government support under Specific Cooperative Agreement No. 58-5358-4542 awarded by the United States Department of Agriculture. The government has certain rights in the invention.

Botanical denomination: *Corylus avellana*.

Variety designation: 'Felix'.

BACKGROUND

The present invention relates to a new and distinct cultivar of *Corylus* plant, (hazelnut, filbert) botanically known as *Corylus avellana*, and hereinafter referred to by the name 'Felix'. *Corylus avellana* is in the family Betulaceae.

The new *Corylus* resulted from a controlled cross of female parent OSU 384.095 (unpatented) and male parent 'Delta' (unpatented) made in 1998 by Shawn A. Mehlenbacher and David C. Smith. Hybrid seeds from the cross were harvested in August 1998, stratified, and seedlings grown in the greenhouse during the summer of 1999. From this cross, total of 157 seedling trees were planted in the field in Corvallis, Oreg., USA in October, 1999. 'Felix' was discovered and selected by the Inventors as a single plant within the progeny of the stated cross-pollination in a controlled environment in Corvallis, Oreg. 'Felix' was originally assigned the designation OSU 941.016, which indicates the row and tree location of the original seedling. 'Delta' (unpatented) was released by the Oregon Agricultural Experiment Station in 2002. OSU 384.095 (unpatented) is from a cross of 'Casina' x OSU 55.129 (both unpatented). OSU 55.129 is from a cross of 'Tonda Gentile delle Langhe' (unpatented)×'Extra Ghiaghli'

(unpatented). The pedigree of 'Felix' includes 'Casina' from Asturias, Spain, 'Tonda Gentile delle Langhe' from Piemonte, northern Italy, and 'Extra Ghiaghli', which is a clone of the important Turkish cultivar 'Tombul' (unpatented).

The new cultivar was asexually reproduced by rooted suckers annually for five years (2005-2006 and 2008-2010) in Corvallis, Oreg. The new cultivar was also asexually propagated by whip grafting in Corvallis, Oreg. The unique features of this new *Corylus* are stable and reproduced true-to-type in successive generations of asexual reproduction.

SUMMARY

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Felix'. These characteristics in combination distinguish 'Felix' as a new and distinct cultivar:

1. Upright plant habit and high vigor.
2. Green developing and fully expanded leaves during the spring and summer.
3. Resistance to eastern filbert blight caused by the fungus *Anisogramma anomala* (Peck) E. Müller.
4. Presence of random amplified polymorphic DNA markers 152-800 and AA12-850 in DNA of 'Felix' amplified by the polymerase chain reaction. These two markers are linked to a dominant allele for resistance to eastern filbert blight from the cultivar Gasaway (unpatented).
5. Expression of incompatibility alleles S_{15} and S_{21} in the styles.
6. DNA fingerprints at 14 of 24 microsatellite marker loci differ from both parents OSU 384.095 and 'Delta', and from one parent at an additional 6 marker loci. DNA

fingerprints of standard cultivars 'Barcelona', 'Tonda Gentile delle Langhe' and 'Extra Ghiaghli', and 'Gasaway', the source of eastern filbert blight resistance, are also shown in the attached table.

In comparisons in two replicated trials conducted in Corvallis, Oreg., plants of the new *Corylus* differed from plants of the *Corylus avellana* cultivar Barcelona (unpatented), and other cultivars and selections of *Corylus avellana* known to the Inventors primarily in nut size, nut shape, kernel percentage (ratio of kernel weight to nut weight), frequency of blank nuts (nuts lacking kernels), time of pollen shed, time of nut maturity, length of the husk or involucre, and plant size.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying colored photographs illustrate the overall appearance of the new cultivar, showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Foliage colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Corylus*.

FIG. **1** shows a tree of the new cultivar 'Felix' growing in a field in the summer, in Corvallis, Oreg.

FIG. **2** shows the tree of the new cultivar 'Felix' growing in a field in January, in Corvallis, Oreg.

FIG. **3** shows typical nuts, raw kernels, and blanched kernels of 'Felix' hazelnut compared to those of 'Jefferson' hazelnut.

FIG. **4** shows the husks of 'Felix' hazelnut.

FIG. **5** shows the typical nuts, raw kernels, and blanched kernels of 'Felix' hazelnut compared to those of 'Barcelona' hazelnut and other hazelnut cultivars.

DETAILED PLANT DESCRIPTION

The cultivar Felix has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and light intensity, without, however, any variance in genotype. The aforementioned photographs and following observations and measurements describe plants grown in Corvallis, Oreg. under commercial practice outdoors in the field during the fall, winter and spring. Plants used for the photographs and description were propagated by tie-off layerage and growing on their own roots, and about five years old. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 1966 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Corylus avellana* cultivar Felix.

Parentage:

Female, or seed, parent.—*Corylus avellana* selection OSU 384.095 (unpatented).

Male, or pollen, parent.—*Corylus avellana* cultivar 'Delta' (unpatented).

Propagation (type rooted suckers):

Time to initiate roots.—About 30 days at 20° C.

Time to produce a rooted young plant.—About six months at 22° C.

Root description.—Fine to thick; freely branching; creamy white in color.

Propagation (type whip grafting):

Time to budbreak on the scions.—About 14 days at 25° C.

Time to produce a grafted plant.—About six months at 25° C.

Plant description:

Type.—Perennial shrub. Upright plant habit.

Growth and branching .—Freely branching; about 15 lateral branches develop per plant. Pinching, i.e., removal of the terminal apices, enhances branching with lateral branches potentially forming at every node.

Size.—Plant height is about 6 meters; plant diameter or spread is about 5 meters.

Vigor.—Vigorous growth.

Lenticels.—6 circular within 1 square centimeter (counted on dormant scions).

Lateral branch description:

Length.—About 43 cm.

Diameter.—About 6 mm.

Internode length.—About 2.8 cm.

Texture.—Smooth, glabrous.

Strength.—Strong.

Color.—Immature — 152B; mature — 152B.

Foliage description:

Arrangement.—Alternate, simple.

Length.—About 10.6 cm.

Width.—About 10.1 cm.

Shape.—Oblong to ovate.

Apex.—Obtuse to acute.

Base.—Cordate.

Margin.—Serrate.

Texture, upper and lower surfaces.—Slightly pubescent.

Venation pattern.—Pinnate.

Leaf bud shape.—Ovid.

Time of leaf bud burst.—Late, 15 days after 'Barcelona'.

Color.—Developing foliage, upper surface 144A, lower surfaces: 145A. Fully expanded foliage, upper surface: Spring and summer, 143A; late summer and fall, 143A. Fully expanded foliage, lower surface: Spring and summer, 139C; late summer and fall, 139C. Venation, upper surface: Spring and summer, 139C; late summer and fall, 139C. Venation, lower surface: Spring and summer, 139D; late summer and fall, 139D. Leaf bud, 178C.

Petiole description:

Length.—About 2.7 cm.

Diameter.—About 1.8 mm.

Texture.—Upper and lower surfaces — pubescent.

Color.—Upper surface: Spring and summer, 139D; late summer and fall, 139D. lower surface: Spring and summer, 139D; late summer and fall, 139D.

Flower description:

Male inflorescences.—Catkins, color prior to elongation 194C in shade, 176D where exposed to sun.

Female inflorescence.—Style color 047B.

Stigma coloration.—047B.

Time of female flowering.—Late, 2.5 weeks after 'Barcelona'.

Time of pollen shed.—Late midseason, around the same time as 'Hall's Giant' (unpatented).

Involcure description:

Involucre constriction.—Absent.

Involucre length.—About 60% longer than nuts.

Strength of serration of indentation.—Deeply serrated.

Pubescence.—Little.

Thickness of callus at base.—Moderate callus at base similar to 'Barcelona'.

Description of jointing of bracts.—About 75% of involucre slit to the base on one side, and about 25% are entire and tubular. Involucre adheres to a few of the nuts after drop, at the side of the basal scar. About 15% are loosely held in tubular husks when the nuts fall.

Nut description:

Length.—About 18.7 mm.

Width.—About 18.9 mm.

Depth.—About 16.7 mm.

Nut shape.—Round.

*Nut shape index [(width+depth)/2*length]*.—0.95.

Nut compression index (width/depth).—1.13.

Nut shell color.—167A.

Nut weight.—About 2.65 grams to 2.74 grams.

Predominant number of fruits per cluster.—Average 2 nuts per cluster.

Stripes on shell.—About 30, color slightly darker than 167A.

Fruit apex.—Moderately prominent.

Size of the fruit pistil scar.—Very small (0.5 mm×1 mm).

Nut curvature of the basal scar.—Flat (plane).

Frequency of blank nuts.—4.2%.

Time of nut maturity.—About 4 days earlier that 'Barcelona'.

Husk length.—About 50% longer than the nuts.

Kernel weight.—About 1.32 grams to 1.37 grams.

Kernel percentage (kernel weight/nut weight).—About 50%.

Kernel shape.—Globular.

Kernel cross section shape.—Circular.

Kernel base shape.—Flat.

Lateral grooves.—None.

Disease/pest resistance: Plants of the new *Corylus* are highly resistant to eastern filbert blight caused by the fungus *Anisogramma anomala* (Peck) E. Müller. Plants of the new *Corylus* are moderately resistant to bud mites (*Phytoptus avellanae* Nal.), while plants of 'Tonda Gentile delle Langhe' are highly susceptible, and plants of 'Barcelona' are highly resistant.

Temperature tolerance: Tolerates temperatures from −10 to 38° C. in the field in Corvallis, Oreg.

TABLE 1

Primers and annealing temperatures for the 24 microsatellite marker loci used to fingerprint 'Felix' and other hazelnut cultivars.

Locus	Repeat motif	Size	T_a	n	He	Ho
A613	$(TC)_{13}(CA)_{12}$	149-177	60	14	0.85	0.85
A614	$(TC)_{17}(CA)_{10}$ NNN$(CA)_6$	125-156	60	14	0.85	0.85
A616	$(AC)_{11}$	136-162	60	13	0.85	0.85
A640	$(CT)_{15}$ $(CA)_{13}$	354-378	67	11	0.80	0.73
B107	$(CT)_{14}$	112-151	55	14	0.85	0.80
B617	$(GA)_{15}$	280-298	60	9	0.80	0.78
B619	$(TC)_{21}$	146-180	60	14	0.88	0.88
B634	$(AG)_{15}$	218-238	60	9	0.76	0.76
B657	$(AG)_{15}$	210-228	60	8	0.84	0.98
B671	$(AG)_6$NN $(GA)_{17}$	221-249	60	13	0.86	0.88
B709	$(GA)_{21}$	219-233	60	8	0.74	0.76
B733	$(TC)_{15}$	161-183	60	8	0.68	0.68
B741	$(GT)_5(GA)_{12}$	176-194	60	10	0.77	0.78

TABLE 1-continued

Primers and annealing temperatures for the 24 microsatellite marker loci used to fingerprint 'Felix' and other hazelnut cultivars.

Locus	Repeat motif	Size	T_a	n	He	Ho
B749	$(TC)_{12}$	200-210	60	6	0.60	0.64
B751	$(GA)_{15}$	141-153	60	7	0.80	0.80
B774	$(AG)_{15}$	195-213	60	8	0.80	0.80
B776	$(GA)_{17}$	134-148	60	7	0.71	0.60
B795	$(TC)_8$Ns$(CT)_7$ Ns$(CT)_{10}$ Ns$(TC)_5$	296-332	60	12	0.76	0.74
C115	$(TAA)_5$ $(GAA)_{12}$	167-226	60	14	0.80	0.80
KG809	$(AGG)_6$	333-345	55	5	0.66	0.64
KG811	$(GA)_{17}$	240-278	58	12	0.83	0.82
KG827	$(CT)_{13}$AA $(CA)_7$	264-282	67	9	0.78	0.84
KG830	$(CT)_{14}$ GTATT $(CA)_8$	279-311	67	9	0.79	0.78
Soman-G	$(AAT)_5$		54	3	0.60	0.98

Locus	PIC	r	LG	Primers 5'-3'
A613	0.85	0.00	11	Ned-CACACGCCTT GTCACTCTTT (SEQ ID NO: 1)
A614	0.84	0.00	6	Hex-TGGCAGAGCT TTGTCAGCTT (SEQ ID NO: 3)
A616	0.83	0.00	8	Fam-CACTCATACC GCAAACTCCA (SEQ ID NO: 5)
A640	0.7	0.04	10	F-TGCCTCTGCA GTTAGTCATC AAATGTAGG (SEQ ID NO: 7)
B107	0.83	0.02	10	Ned-GTAGGTGCAC TTGATGTGCTT TAC (SEQ ID NO: 9)
B617	0.78	0.01	8	Fam-TCCGTGTTGA GTATGGACGA (SEQ ID NO: 11)
B619	0.7	0.00	3	Fam-AGTCGGCTCC CCTTTTCTC (SEQ ID NO: 13)
B634	0.73	0.00	4	Hex-CCTGCATCCA GGACTCATTA 60 (SEQ ID NO: 15)
B657	0.82	−0.08	11	Ned-GAGAGTGCGT CTTCCTCTGG (SEQ ID NO: 17)
B671	0.84	−0.01	9	Hex-TTGCCAGTGC ATACTCTGAT G (SEQ ID NO: 19)
B709	0.70	−0.01	5	Ned-CCAAGCACGA ATGAACTCAA (SEQ ID NO: 21)
B733	0.63	0.00	7.2	Ned-CACCCTCTTCA CCACCTCAT (SEQ ID NO: 23)
B741	0.74	0.00	5	Fam-GTTCACAGGC TGTTGGGTTT (SEQ ID NO: 25)
B749	0.51	−0.03	1	Hex-GGCTGACAAC ACAGCAGAAA (SEQ ID NO: 27)
B751	0.77	0.01	7.2	Fam-AGCTGGTTCTT CGACATTCC (SEQ ID NO: 29)
B774	0.77	0.01	5	Ned-GTTTTGCGAG CTCATTGTCA (SEQ ID NO: 31)
B776	0.67	0.07	6	Fam-TGTATGTACA CACGGAGAGA GAGA (SEQ ID NO: 33)

TABLE 1-continued

Primers and annealing temperatures for the 24 microsatellite marker loci used to fingerprint 'Felix' and other hazelnut cultivars.

B795	0.74	0.01	NA	Fam-GACCCACAAA CAATAACCTA TCTC (SEQ ID NO: 35)
C115	0.77	0.00	4	Fam-ATTTTCCGCA GATAATACAGG (SEQ ID NO: 37)
KG809	0.60	0.01	4	Hex-AGGCATCAGT TCATCCAA (SEQ ID NO: 39)
KG811	0.81	0.01	2	Ned-AAGGCGGCAC TCGCTCAC (SEQ ID NO: 41)
KG827	0.75	-0.04	9	Fam-AGAACTCCGA CTAATAATCC TAACCCTTGC (SEQ ID NO: 43)
KG830	0.76	0.00	9	Ned-TGGAGGAAGT TTTGAATGGT AGTAGAGGA (SEQ ID NO: 45)
Soman-G	0.51	-0.27	NA	Hex-TGGCGTTGCA ACATATTCTC (SEQ ID NO: 47)

Locus	Primers 5'-3'	Reference
A613	R-CCCCTTTCACAT GTTTGCTT (SEQ ID NO: 2)	Gurcan et al. 2010
A614	R-GCAGTGGAGGA TTGCTGACT (SEQ ID NO: 4)	Gurcan et al. 2010
A616	R-ATGGCTTTTGCT TCGTTTTG (SEQ ID NO: 6)	Gurcan et al. 2010
A640	Fam-CGCCATATAATT GGGATGCTTGTT G (SEQ ID NO: 8)	Gurcan et al. 2010
B107	R-AACACCATATTG AGTCTTTCAAAG C (SEQ ID NO: 10)	Boccacci et al. 2005; Gokirmak et al. 2009
B617	R TGTTTTTGGTGG AGCGATG (SEQ ID NO: 12)	Gurcan et al. 2010
B619	R-GCGATCTGACCT CATTTTTG (SEQ ID NO: 14)	Gurcan et al. 2010
B634	R-GTGCAGAGGTTG CACTCAAA (SEQ ID NO: 16)	Gurcan et al. 2010
B657	R-AGCCTCACCTCC AACGAAC (SEQ ID NO: 18)	Gurcan et al. 2010
B671	R-ACCAGCTCTGGG CTTAACAC (SEQ ID NO: 20)	Gurcan et al. 2010
B709	R-GCGGGTTCTCGT TGTACACT (SEQ ID NO: 22)	Gurcan et al. 2010
B733	R-CATCCCCTGTTG GAGTTTTC (SEQ ID NO: 24)	Gurcan et al. 2010
B741	R-CGTGTTGCTCAT GTGTTGTG (SEQ ID NO: 26)	Gurcan et al. 2010
B749	R-TCGGCTAGGGTT AGGGTTTT (SEQ ID NO: 28	Gurcan et al. 2010
B751	R-AAACTCAAATA AAACCCCTGCTC (SEQ ID NO: 30)	Gurcan et al. 2010
B774	R-TGTGTGTGGTCT GTAGGCACT (SEQ ID NO: 32)	Gurcan et al. 2010
B776	R-TGAGGGGAAGA GGTTTGATG (SEQ ID NO: 34)	Gurcan et al. 2010
B795	R-TGGGCATCATCC AGGTCTA (SEQ ID NO: 36)	Gurcan et al. 2010
C115	GTTTCCAGATCT GCCTCCATATAA T (SEQ ID NO: 38)	Bassil et al. 2005b, Gokirmak et al. 2009
KG809	F-GGAAGGTGAGA GAAATCAAGT (SEQ ID NO: 40)	Gurcan and Mehlenbacher 2010
KG811	F-GAACAACTGAA GACAGCAAAG (SEQ ID NO: 42)	Gurcan and Mehlenbacher 2010
KG827	GAGGGAGCAAQ TCAAAGTTGAGA AGAAA (SEQ ID NO: 44)	Gurcan and Mehlenbacher 2010
KG830	AAAGCAACTCAT AGCTGAAGTCCA ATCA (SEQ ID NO: 46)	Gurcan and Mehlenbacher 2010
Soman-G	R-GCCATCTTTAGA AAGTTCGATACAG (SEQ ID NO: 48)	unpublished

Primer fluorescent tags are FAM, HEX, and NED.
Ta: annealing temperature (° C.)
N: number of alleles
He: expected heterozygosity
Ho: observed heterozygosity
PIC: polymorphism information content
r: estimated null allele frequency
LG: linkage group

TABLE 2

Allele sizes in 'Felix' and other hazelnut cultivars at 24 microsatellite loci.

Tag	Locus	'Felix'	'384.095'	'Delta'	'Tonda Gentile delleLanghe'
NED	A613	149/151	151/169	149/177	151/157
HEX	A614	139/143	135/139	143/158	125/135
FAM	A616	150/150	150/150	150/150	148/150
FAM	A640	368/372	368/372	362/372	354/368
NED	B107	130/152	130/152	122/130	134/152
FAM	B617	286/286	286/286	286/286	286/296
FAM	B619	156/164	148/164	156/164	148/164
HEX	B634	226/234	226/226	226/234	226/226
NED	B657	218/226	218/222	222/226	218/226
HEX	B671	227/235	227/247	235/247	237/241
NED	B709	227/231	225/231	227/227	227/227
NED	B733	173/179	171/173	173/179	171/173
FAM	B741	177/186	177/186	177/186	177/184
HEX	B749	206/206	206/208	206/208	206/208
FAM	B751	151/153	143/153	143/151	149/153
NED	B774	203/213	203/203	207/213	203/211
FAM	B776	148/150	137/148	137/150	137/137
FAM	B795	330/330	310/330	314/330	312/330
FAM	C115	197/215	173/197	197/215	173/173
HEX	KG809	336/345	336/336	345/345	336/339
NED	KG811	248/264	242/248	254/264	254/264
FAM	KG827	270/282	276/282	270/270	266/268
NED	KG830	291/303	289/303	291/297	291/295
HEX	SMNG	196/200	196/200	196/196	196/200

TABLE 2-continued

Allele sizes in 'Felix' and other hazelnut cultivars at 24 microsatellite loci.

Tag	Locus	'Barcelona'	'Extra Ghiaghli'	'Gasaway'
NED	A613	151/159	167/169	159/161
HEX	A614	125/131	125/150	143/158
FAM	A616	142/150	150/158	148/148
FAM	A640	354/374	374/374	362/368
NED	B107	112/134	116/116	122/128
FAM	B617	286/290	294/296	292/296
FAM	B619	156/170	164/174	170/174
HEX	B634	226/226	226/226	220/232
NED	B657	218/222	210/222	224/228
HEX	B671	223/227	227/247	235/247
NED	B709	225/233	225/227	227/227
NED	B733	171/173	171/171	173/173
FAM	B741	177/186	177/184	186/188
HEX	B749	208/208	208/208	206/208
FAM	B751	143/153	143/147	143/143
NED	B774	203/207	195/203	203/209
FAM	B776	135/137	135/137	146/150
FAM	B795	330/330	296/310	314/316
FAM	C115	173/194	182/194	215/218
HEX	KG809	336/336	336/339	336/345
NED	KG811	258/264	240/242	254/258
FAM	KG827	280/282	276/282	270/280
NED	KG830	291/295	291/295	291/305
HEX	SMNG	196/200	196/200	196/196

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SEQUENCE LISTING

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tgcctctgca gttagtcatc aaatgtagg 29

<210> SEQ ID NO 8
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<400> SEQUENCE: 8

cgccatataa ttgggatgct tgttg 25

<210> SEQ ID NO 9
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<400> SEQUENCE: 9

gtaggtgcac ttgatgtgct ttac 24

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<211> LENGTH: 25
<212> TYPE: DNA

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<220> FEATURE:
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<400> SEQUENCE: 10

aacaccatat tgagtctttc aaagc 25

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tccgtgttga gtatggacga 20

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tgtttttggt ggagcgatg 19

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agtcggctcc ccttttctc 19

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<400> SEQUENCE: 14

gcgatctgac ctcatttttg 20

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cctgcatcca ggactcatta 20

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gtgcagaggt tgcactcaaa 20

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gagagtgcgt cttcctctgg 20

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agcctcacct ccaacgaac 19

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ttgccagtgc atactctgat g 21

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accagctctg ggcttaacac 20

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ccaagcacga atgaactcaa 20

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gcgggttctc gttgtacact 20

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caccctcttc accacctcat 20

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catcccctgt tggagttttc 20

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cgtgttgctc atgtgttgtg 20

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ggctgacaac acagcagaaa 20

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tcggctaggg ttagggtttt 20

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agctggttct tcgacattcc 20

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aaactcaaat aaaacccctg ctc 23

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gttttgcgag ctcattgtca 20

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tgtgtgtggt ctgtaggcac t 21

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tgtatgtaca cacggagaga gaga 24

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tgaggggaag aggtttgatg 20

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gacccacaaa caataaccta tctc 24

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tgggcatcat ccaggtcta 19

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attttccgca gataatacag g 21

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gtttccagat ctgcctccat ataat 25

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aggcatcagt tcatccaa 18

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ggaaggtgag agaaatcaag t 21

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aaggcggcac tcgctcac 18

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gaacaactga agacagcaaa g 21

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agaactccga ctaataatcc taacccttgc 30

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gagggagcaa gtcaaagttg agaagaaa 28

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tggaggaagt tttgaatggt agtagagga 29

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<400> SEQUENCE: 46

aaagcaactc atagctgaag tccaatca 28

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<223> OTHER INFORMATION: Synthetic polynucleotide

<400> SEQUENCE: 47

tggcgttgca acatattctc 20

<210> SEQ ID NO 48
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<223> OTHER INFORMATION: Synthetic polynucleotide

<400> SEQUENCE: 48

gccatcttta gaaagttcga tacag 25

We claim:

1. A new and distinct cultivar of *Corylus* plant named 'Felix', as illustrated and described.

* * * * *

FIG. 1

FIG. 2

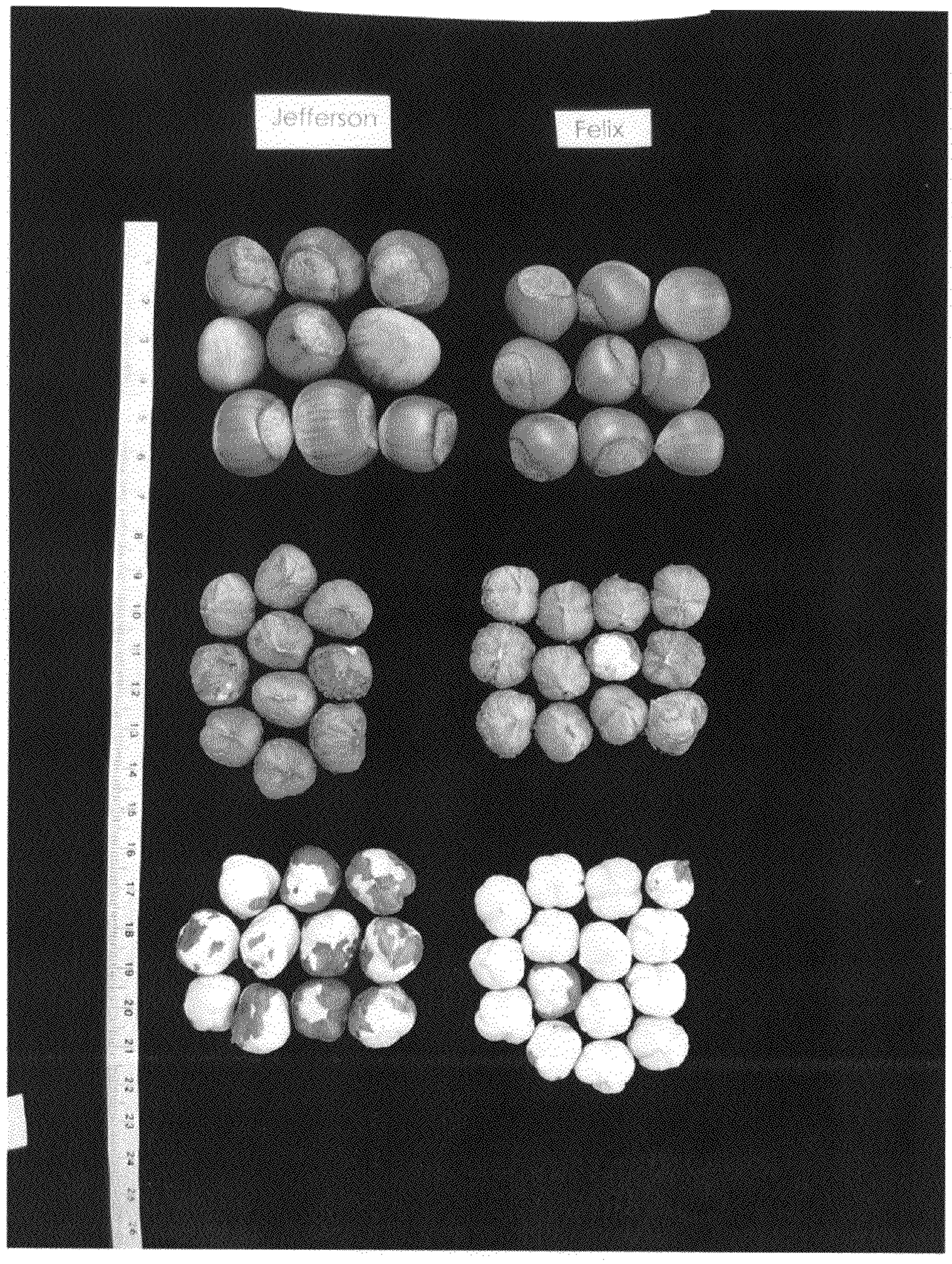

FIG. 3

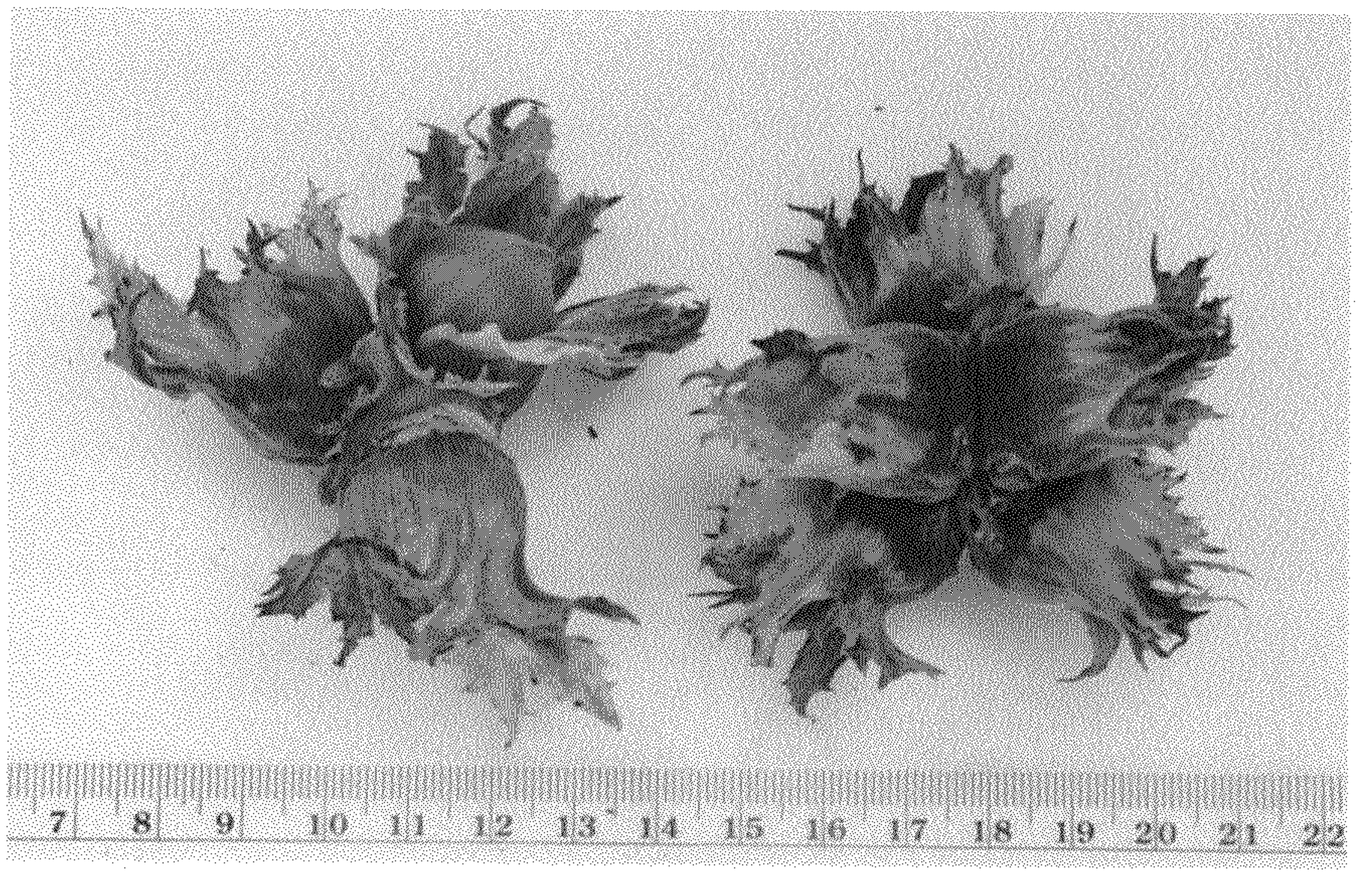

FIG. 4

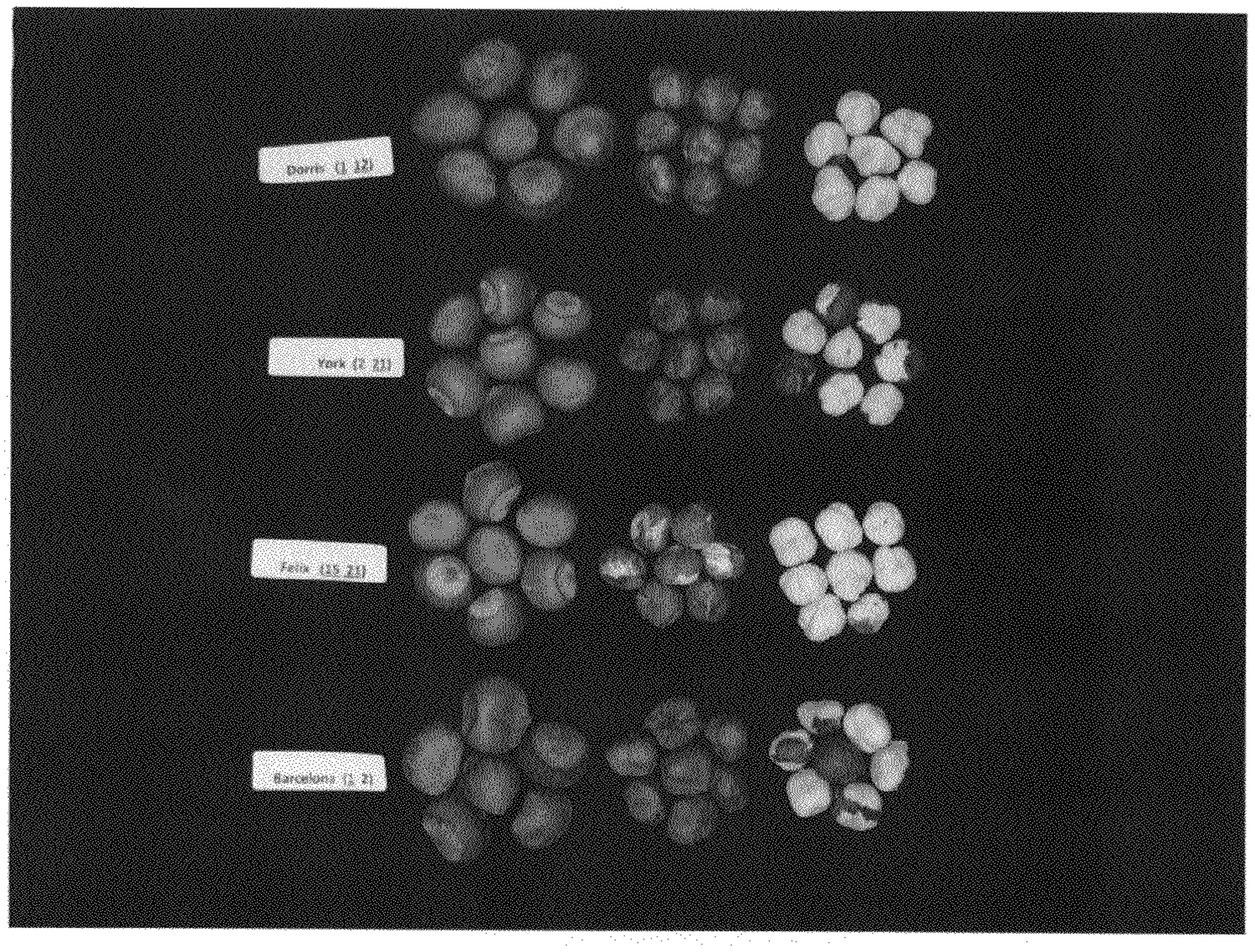

FIG. 5