



## APPLICATIONS UNDER EXAMINATION

## STRAWBERRY

### STRAWBERRY (*Fragaria ×ananassa*)

**Proposed denomination:** 'Charlotte'  
**Application number:** 08-6302  
**Application date:** 2008/04/02  
**Applicant:** Ciref Création Variétale Fraises - Fruits Rouges, Douville, France  
**Agent in Canada:** Bereskin & Parr, Toronto, Ontario  
**Breeder:** Philippe Roudeillac, Ciref Création Variétale Fraise - Fruits Rouges, France

**Varieties used for comparison:** 'Mara des Bois' and 'Seascape'

**Summary:** 'Charlotte' differs from 'Mara des Bois' and 'Seascape' mainly in plant vigour, anthocyanin colouration of the stolon, leaf size, petiole length, fruit size, shape, colour, and position of achenes and size of calyx in relation to corolla. 'Charlotte' has weaker plant vigour than 'Mara des bois' but stronger than 'Seascape'. 'Charlotte' has a medium anthocyanin colouration of the stolon whereas it is weak compared to both reference varieties. The leaves of 'Charlotte' are large whereas they are small for 'Mara des bois' and medium for 'Seascape'. The petiole length in 'Charlotte' is longer than 'Mara des bois' but shorter than 'Seascape'. 'Charlotte' has medium sized, conical, medium red skinned fruits with achenes level with the surface whereas they are small, ovoid, orange red fruits with achenes below the surface for 'Mara des bois' and large conical dark red fruits with achenes below surface for 'Seascape'. For 'Charlotte' the size of the calyx in relation to corolla is larger than for both reference varieties.

#### **Description:**

**PLANT:** semi-upright growth habit, medium to dense density, medium vigour, fully remontant

**STOLON:** few, medium anthocyanin colouration, sparse pubescence

**LEAF:** dark green on upper side, large, absent or weak interveinal blistering, medium glossiness, no variegation

**TERMINAL LEAFLET:** longer than broad length/width ratio, obtuse base, dentate to crenate margin, concave shape in cross section

**PETIOLE:** medium length, hairs horizontal, weak anthocyanin colouration of stipules

**FLOWERING:** early

**INFLORESCENCE:** medium number of flowers, hairs on pedicel pointing slightly outwards

**FLOWER:** calyx larger than corolla, stamens present

**PETALS:** overlapping, as long as broad, white

**FRUIT:** as long as broad, medium sized, conical, slight difference in shape between primary and secondary fruit, absent or very narrow band without achenes, absent or very small cavity

**FRUIT SURFACE:** weak unevenness of surface, medium red, even or slightly uneven colour, strong glossiness

**ACHENES:** insertion level with surface of fruit

**CALYX:** insertion level with surface of fruit, sepal attitude downward, same as fruit diameter, strong adherence to fruit

**FRUIT FLESH:** medium to firm, light red with light red core

**FRUIT HARVEST:** early

**Origin and Breeding:** 'Charlotte' was created in a breeding program by crossing 'Mara des Bois' by 'CAL 19' in 1995 at the CIREF station, Nébouts at Lanxade, France. The selection of the variety 'Charlotte' was based on the following criteria: everbearing, which allows a consistent production during the year; fruits of good quality for the consumer; vigour and hardiness; disease tolerance to reduce the inputs and a consistent and distinctive tastefulness that distinguishes itself on the market.

**Tests and Trials:** The trials were performed during the summer of 2008 in Lavaltrie, Québec. There were 100 plants of each variety, each spaced 30 cm apart within the row and with rows that were spaced 130 cm apart.



Strawberry: Candidate variety, 'Charlotte'



Strawberry: Reference variety, 'Mara des Bois'



Strawberry: Reference variety, 'Seascape'

<b>Proposed denomination:</b>	<b>'Drisstrawfour'</b>
<b>Trade name:</b>	Driscoll Desoto
<b>Application number:</b>	07-6055
<b>Application date:</b>	2007/11/23
<b>Applicant:</b>	Driscoll Strawberry Associates, Inc., Watsonville, California, United States of America
<b>Agent in Canada:</b>	Variety Rights Management, Oxford Station, Ontario
<b>Breeder:</b>	Bruce D. Mowrey, Watsonville, California, United States of America Kristie L. Gilford, Dover, Florida, United States of America

**Variety used for comparison:** 'Osceola'

**Summary:** *'Drisstrawfour' differs from the reference variety, 'Osceola', mainly in leaf blistering, cross section of the terminal leaflet, shape of teeth, anthocyanin colouration of the stolon, stolon pubescence, length/width ratio of the petals and harvest maturity. The leaves of 'Drisstrawfour' have strong blistering whereas the leaves of 'Osceola' have medium blistering. The terminal leaflets of 'Drisstrawfour' have rounded teeth and are slightly concave to flat in cross section whereas they have obtuse teeth and are strongly convex on 'Osceola'. The stolons of 'Drisstrawfour' have very strong intensity of anthocyanin colouration and sparse pubescence whereas they have medium to strong intensity of anthocyanin colouration and dense pubescence on 'Osceola'. The petals of 'Drisstrawfour' are broader than they are long whereas they are as long as they are broad to longer than broad on 'Osceola'. 'Drisstrawfour' matures early and is fully everbearing whereas 'Osceola' matures late and is partially everbearing.*

**Description:**

**PLANT:** flat growth habit, medium to dense, medium vigour, fully everbearing

**LEAF:** medium to dark green on upper side, semi-upwards to horizontal profile, strong interveinal blistering, only three leaflets per leaf

**TERMINAL LEAFLET:** slightly concave to flat in cross section, flat leaf tip, as long as broad length/width ratio, obtuse base, rounded teeth

**PETIOLE:** medium density of pubescence, hairs pointing upwards and outwards, weak to medium anthocyanin colouration of stipules

**STOLON:** medium in number, very strong anthocyanin colouration, thick, sparse pubescence

FLOWERING: very early

INFLORESCENCE: positioned level with to above foliage

FLOWER: medium sized, calyx diameter larger than the corolla, inner calyx diameter same size as the outer calyx

PETALS: overlapping, broader than they are long

FRUITING TRUSS: prostrate attitude at first picking, short to medium length

FRUIT: as long as they are broad, medium sized, cordate, slight difference in shape between primary and secondary fruit, medium width band without achenes

FRUIT SURFACE: smooth, orange red to red, even colour, medium to strong glossiness

ACHENES: insertion level with surface of fruit

CALYX: insertion set level with fruit, reflexed pose of segments, same size to larger than fruit diameter, strong adherence to fruit

FRUIT FLESH: medium firmness, light red to orange red, slightly uneven colour with lighter colour near the middle, strong sweetness, medium texture when tasted, medium acidity

FRUIT HARVEST: early, fully everbearing

**Origin and Breeding:** ‘Drisstrawfour’ arose from the controlled cross between a proprietary seedling selection, ‘6F364’ and ‘Mirador’, conducted between October 1998 and January 1999 at Garrison Farm in Hillsborough County, Florida, USA. ‘Drisstrawfour’ was selected from the seedling population in December, 2000 based on fruit size and yield. It was asexually propagated at Driscoll Nursery in Shasta County, California and subsequently propagated and further tested for six years in the nursery in Hillsborough County, Florida. Further selection was conducted based on yield, vigour and reliable propagation.

**Tests and Trials:** The tests and trials for ‘Drisstrawfour’ were conducted at Variety Rights Management, Oxford Station, Ontario during the summer of 2008. Twenty plants of each variety were planted in two rows in a zig-zag pattern, with rows spaced 1.0 metre apart and plants spaced approximately 0.75 metres apart within the row. Straw and biodegradable plastic mulching were used for weed control.



Strawberry: ‘Drisstrawfour’ (right) with reference variety ‘Osceola’ (left)





Strawberry: 'Drisstrawfour' (right) with reference variety 'Osceola' (left)

<b>Proposed denomination:</b>	<b>'Monterey'</b>
<b>Application number:</b>	08-6364
<b>Application date:</b>	2008/01/25 (priority claimed)
<b>Applicant:</b>	The Regents of the University of California, Oakland, California, United States of America
<b>Agent in Canada:</b>	Expert Agriculture Team Ltd., Chilliwack, British Columbia
<b>Breeder:</b>	Kirk D. Larson, Irvine, California, United States of America Douglas Shaw, Davis, California, United States of America

**Varieties used for comparison:** 'Albion', 'Diamante', 'Portola' and 'San Andreas'

**Summary:** *'Monterey' differs from the reference varieties, 'Albion', 'Diamante', 'Portola' and 'San Andreas', mainly in plant vigour, shape of terminal leaflet base, stolon anthocyanin colouration, position of the inflorescence in relation to the foliage, petal spacing, diameter of the calyx relative to the corolla, attitude of the fruiting truss at first picking, fruit shape and fruit glossiness. Plant vigour of 'Monterey' is very strong whereas it is strong in 'Albion' and medium in 'Portola' and medium to strong in 'San Andreas'. The base of the terminal leaflet of 'Monterey' is moderately oblique whereas it is obtuse in 'Albion' and 'Diamante'. The intensity of anthocyanin colouration on the stolons of 'Monterey' is weak whereas it is medium on 'San Andreas' and medium to strong on 'Portola'. The inflorescence of 'Monterey' is positioned level with the foliage whereas it is well above the foliage on 'Portola' and above the foliage on 'San Andreas'. The diameter of the calyx of 'Monterey' is smaller than to the same size as the corolla whereas it is larger than the corolla on 'Albion', 'Diamante' and 'San Andreas'. The petals of 'Monterey' are free to touching whereas they are touching to overlapping on 'Diamante', 'Portola' and 'San Andreas'. The attitude of the fruiting truss at first picking of 'Monterey' is semi-erect whereas it is erect on 'Albion' and 'Portola'. The fruit shape of 'Monterey' is bi-conical whereas it is almost cylindrical in 'Albion' and 'Diamante' and wedged in 'Portola'. Fruit glossiness on 'Monterey' is very weak whereas it is medium to strong on 'Albion' and strong on 'Diamante', 'Portola' and 'San Andreas'.*

**Description:**

PLANT: upright growth habit, medium to dense, very strong vigour, fully everbearing

LEAF: medium green on upper side, flat to slightly convex in profile, strong interveinal blistering, only three leaflets per leaf

TERMINAL LEAFLET: flat profile, as long as broad to longer than broad length/width ratio, moderately oblique base, acute shape of teeth

PETIOLE: dense pubescence, hairs pointing upwards, very weak anthocyanin colouration of stipules

STOLON: few to medium in number, weak anthocyanin colouration, thick, medium density of pubescence

FLOWERING: early to mid-season

INFLORESCENCE: positioned level with foliage

FLOWER: medium to large, calyx diameter smaller than to the same size as the corolla, inner calyx diameter smaller than outer calyx

PETALS: free to touching, as long as they are broad

FRUITING TRUSS: semi-erect attitude at first picking, long

FRUIT: longer than they are broad, medium to large, bi-conical, no or very slight difference in shape between primary and secondary fruit, narrow band without achenes

FRUIT SURFACE: medium unevenness of surface, red, evenness of colour, very weak glossiness

ACHENES: insertion below to level with surface of fruit

CALYX: insertion set level to above level of fruit, reflexed pose of segments, larger than fruit diameter, strong adherence to fruit

FRUIT FLESH: very firm, dark red, even in colour, strong sweetness, fine texture when tasted, medium acidity

FRUIT HARVEST: early to mid-season

REACTION TO PESTS: susceptible to highly susceptible to *Aphis* spp., susceptible to *Lygus lineolaris* (tarnished plant bug)

REACTION TO DISEASES: moderately susceptible to Botrytis fruit rot, moderately resistant to powdery mildew and moderately susceptible to viral diseases

**Origin and Breeding:** 'Monterey' arose as the result of a cross between the variety, 'Albion' and the advanced selection, 'Cal 97.85-6' conducted in 2001. 'Monterey' first fruited in 2002 at the University of California Wolfskill Experimental Orchard, near Winters, California. It was selected, originally designated Cal 1.132-3 and was asexually propagated by runners. Following selection and throughout testing, the variety was designated 'CN222'.

**Tests and Trials:** The tests and trials for 'Monterey' were conducted at Krause Berry Farms, Aldergrove, British Columbia during the summer of 2008. The trials consisted of two replications of 40 plants per variety, with a plant spacing of 30 cm and a row spacing of approximately 1.07 metres.



Strawberry: 'Monterey' (centre) with reference varieties 'Albion' (left), 'Diamante' (centre, left), 'Portola' (centre, right) and 'San Andreas' (right)



Strawberry: 'Monterey' (top left) with reference varieties 'Portola' (top centre), 'San Andreas' (top right), 'Albion' (bottom left) and 'Diamante' (bottom right)

**Proposed denomination:** 'Palomar'  
**Application number:** 07-5899  
**Application date:** 2007/01/16 (priority claimed)  
**Applicant:** The Regents of the University of California, Oakland, California, United States of America  
**Agent in Canada:** Expert Agriculture Team Ltd., Chilliwack, British Columbia  
**Breeder:** Kirk D. Larson, Irvine, California, United States of America  
 Douglas Shaw, Davis, California, United States of America

**Varieties used for comparison:** 'Puget Reliance' and 'Stolo'

**Summary:** 'Palomar' differs from the reference varieties, 'Puget Reliance' and 'Stolo' mainly in plant density of foliage, plant vigour, leaf blistering, position of the inflorescence in relation to the foliage, flower size, fruit shape and harvest maturity. The plants of 'Palomar' have sparse density of foliage whereas the plants of 'Puget Reliance' have medium to dense and 'Stolo' has medium density of foliage. The plants of 'Palomar' have weak vigour whereas those of 'Puget Reliance' have strong vigour and those of 'Stolo' have medium to strong vigour. The leaves of 'Palomar' have strong blistering whereas those of 'Puget Reliance' and 'Stolo' have medium and weak blistering respectively. The inflorescence of 'Palomar' is positioned above the foliage whereas it is positioned level with the foliage of 'Puget Reliance'. The flowers of 'Palomar' are large whereas those of 'Puget Reliance' are medium sized and those of 'Stolo' are small to medium-sized. The fruit shape of 'Palomar' is ovoid whereas it is cordate in 'Puget Reliance' and cylindrical in 'Stolo'. Harvest maturity of 'Palomar' is early whereas it is very early in 'Puget Reliance' and early to late in 'Stolo'.

**Description:**

PLANT: upright growth habit, sparse density of foliage, weak vigour, not remontant

STOLON: medium number, very weak anthocyanin colouration, sparse pubescence

LEAF: medium size, dark green on upper side, strong blistering, strong glossiness, variegation absent

TERMINAL LEAFLET: equal length in relation to width, obtuse base, crenate margin, convex in cross section

PETIOLE: short to medium length, upwards attitude of hairs

STIPULE: weak anthocyanin colouration

FLOWERING: very early

INFLORESCENCE: positioned above foliage, few to medium number of flowers

PEDICEL: upwards attitude of hairs

FLOWER: large, calyx diameter smaller than corolla, stamens present

PETALS: free arrangement, equal in length to width, white

FRUIT: moderately longer than wide, large, ovoid, slight difference in shape between primary and secondary fruit, medium width of band without achenes

FRUIT SURFACE: orange red, strongly uneven colour, medium to strong glossiness, slight unevenness of surface

ACHENES: insertion below surface of fruit

CALYX: positioned raised above level of fruit, downwards attitude of sepals, slightly smaller diameter than fruit diameter, medium to strong adherence to fruit

FRUIT FLESH: firm to very firm, light red, white core, large cavity

FRUIT HARVEST: early

**Origin and Breeding:** 'Palomar' arose as the result of a cross between the varieties, 'Camino Real' and 'Ventana' conducted in 2000. 'Palomar' first fruited in 2001 at the University of California Wolfskill Experimental Orchard, near Winters, California. It was selected, originally designated Cal 0.259-2 and was asexually propagated by runners. Following selection and throughout testing, the variety was designated 'C221'. Selection criteria for 'Palomar' was fruit quality.

**Tests and Trials:** The tests and trials for 'Palomar' were conducted at Krause Berry Farm in Aldergrove, British Columbia during the summers of 2007 and 2008. The trials consisted of four matted rows measuring approximately 3 metres in length, spaced 1.07 metres apart. Initially, 40 plants/variety were planted in single rows spaced 30 cm apart. Runners were directed in to form matted rows.



Strawberry: 'Palomar' with reference varieties 'Puget Reliance' (left) and 'Stolo' (right)



**Proposed denomination:** 'Portola'  
**Application number:** 08-6363  
**Application date:** 2007/11/06 (priority claimed)  
**Applicant:** The Regents of the University of California, Oakland, California, United States of America  
**Agent in Canada:** Expert Agriculture Team Ltd., Chilliwack, British Columbia  
**Breeder:** Kirk D. Larson, Irvine, California, United States of America  
 Douglas Shaw, Davis, California, United States of America

**Varieties used for comparison:** 'Albion', 'Diamante', 'Monterey' and 'San Andreas'

**Summary:** *'Portola' differs from the reference varieties, 'Albion', 'Diamante', 'Monterey' and 'San Andreas', mainly in leaf blistering, number of leaflets, petiole pubescence, stolon anthocyanin colouration, stolon thickness, position of the inflorescence in relation to the foliage, flower size, petal spacing, attitude of the fruiting truss at first picking, fruit size and band without achenes. Leaf blistering of 'Portola' is very strong whereas it is strong on 'Albion' and 'Monterey', weak to medium in 'Diamante' and medium to strong on 'San Andreas'. 'Portola' has more than three leaflets on up to five out of ten leaves whereas the reference varieties all have three leaflets only. The density of pubescence on the petiole of 'Portola' is medium whereas it is dense to very dense on 'Albion' and 'Diamante', dense on 'Monterey' and very dense on 'San Andreas'. The intensity of anthocyanin colouration on the stolons of 'Portola' is medium to strong whereas it is very weak on 'Albion' and 'Diamante' and weak on 'Monterey'. The stolons of 'Portola' are medium in thickness whereas they are thick on all of the reference varieties. The inflorescence of 'Portola' is positioned well above the foliage whereas it is level with the foliage on 'Diamante' and 'Monterey' and slightly above the foliage on 'Albion'. The flowers of 'Portola' are small to medium in size whereas they are medium to large on 'Albion', 'Diamante' and 'Monterey' and large on 'San Andreas'. The petals of 'Portola' are touching to overlapping whereas they are free on 'Albion' and free to touching on 'Monterey'. The attitude of the fruiting truss at first picking of 'Portola' is erect whereas it is semi-erect on 'Diamante' and 'Monterey', and semi-erect to prostrate on 'San Andreas'. The fruit of 'Portola' is medium-sized whereas it is large to very large in 'Albion' and 'San Andreas' and large in 'Diamante'. The band without achenes on 'Portola' is very narrow whereas it is medium on 'Albion' and 'San Andreas'.*

**Description:**

**PLANT:** upright growth habit, medium to dense, medium vigour, fully everbearing

**LEAF:** medium green on upper side, slightly convex to convex in profile, very strong interveinal blistering, more than three leaflets per leaf

**TERMINAL LEAFLET:** cupped profile, as long as broad length/width ratio, moderately oblique base, acute shape of teeth

**PETIOLE:** medium density of pubescence, hairs pointing outwards, weak anthocyanin colouration of stipules

**STOLON:** few in number, medium to strong anthocyanin colouration, medium thickness, sparse pubescence

**FLOWERING:** early

**INFLORESCENCE:** positioned well above foliage

**FLOWER:** small to medium sized, calyx diameter smaller to the same size as the corolla, inner calyx diameter smaller to the same size as the outer calyx

**PETALS:** touching to overlapping, broader than they are long

**FRUITING TRUSS:** erect attitude at first picking, very long

**FRUIT:** longer than they are broad, medium sized, wedged, slight difference in shape between primary and secondary fruit, very narrow band without achenes

**FRUIT SURFACE:** strong to very strong unevenness of surface, orange, very even colour, strong glossiness

**ACHENES:** insertion level with surface of fruit

**CALYX:** insertion set level with fruit, reflexed pose of segments, larger than fruit diameter, medium adherence to fruit

**FRUIT FLESH:** firm, orange red, slightly uneven colour, medium sweetness, fine texture when tasted, strong acidity

**FRUIT HARVEST:** early

**REACTION TO PESTS:** susceptible to highly susceptible to *Aphis* spp., susceptible to *Lygus lineolaris* (tarnished plant bug)

**REACTION TO DISEASES:** moderately susceptible to Botrytis fruit rot, moderately resistant to powdery mildew, susceptible to leaf blight and moderately susceptible to viral diseases

**Origin and Breeding:** ‘Portola’ arose as the result of a cross between the advance selections, ‘Cal 97.93-7’ and ‘Cal 97.209-1’ conducted in 2001. ‘Portola’ first fruited in 2002 at the University of California Wolfskill Experimental Orchard, near Winters, California. It was selected, originally designated Cal 1.206-5 and was asexually propagated by runners. Following selection and throughout testing, the variety was designated ‘CN224’.

**Tests and Trials:** The tests and trials for ‘Portola’ were conducted at Krause Berry Farms, Aldergrove, British Columbia during the summer of 2008. The trials consisted of two replications of 40 plants per variety, with a plant spacing of 30 cm and a row spacing of approximately 1.07 metres.



Strawberry: ‘Portola’ (centre, right) with reference varieties ‘Albion’ (left), ‘Diamante’ (centre, left), ‘Monterey’ (centre) and ‘San Andreas’ (right)



Strawberry: 'Portola' (top centre) with reference varieties 'Monterey' (top left), 'San Andreas' (top right), 'Albion' (bottom left) and 'Diamante' (bottom right)

<b>Proposed denomination:</b>	<b>'San Andreas'</b>
<b>Application number:</b>	08-6362
<b>Application date:</b>	2008/01/25 (priority claimed)
<b>Applicant:</b>	The Regents of the University of California, Oakland, California, United States of America
<b>Agent in Canada:</b>	Expert Agriculture Team Ltd., Chilliwack, British Columbia
<b>Breeder:</b>	Douglas Shaw, Davis, California, United States of America Kirk D. Larson, Irvine, California, United States of America

**Varieties used for comparison:** 'Albion', 'Diamante', 'Monterey' and 'Portola'

**Summary:** *'San Andreas' differs from the reference varieties, 'Albion', 'Diamante', 'Monterey' and 'Portola', mainly in green colour of the upper side of the leaf, leaf blistering, petiole pubescence, stipule anthocyanin colouration, flower size, diameter of inner calyx relative to the outer calyx, petal spacing, attitude of the fruiting truss at first picking and insertion of the achenes. The green colour of the upper side of the leaf of 'San Andreas' is light to medium green whereas it is medium to dark green in 'Albion' and 'Diamante'. Leaf blistering of 'San Andreas' is medium to strong whereas it is weak to medium on 'Diamante' and very strong in 'Portola'. Pubescence on the petiole of 'San Andreas' is very dense whereas it is dense on 'Monterey' and medium on 'Portola'. The intensity of anthocyanin colouration on the stipules of 'San Andreas' is medium to strong whereas it is absent on 'Albion', weak on 'Diamante' and 'Portola' and very weak on 'Monterey'. The flowers of 'San Andreas' are large whereas they are small to medium on 'Portola'. The diameter of the inner calyx of 'San Andreas' is the same size to larger than the diameter of the outer calyx whereas it is smaller than the outer calyx on 'Albion' and 'Monterey' and smaller to the same size as the outer calyx on 'Diamante' and 'Portola'. The petals of 'San Andreas' are touching to overlapping whereas they are free on 'Albion' and free to touching on 'Monterey'. The attitude of the fruiting truss at first picking of 'San Andreas' is semi-erect to prostrate whereas it is erect on 'Albion' and 'Portola'. The achenes of 'San Andreas' are inserted below the level of the fruit surface whereas they are level with the surface on 'Diamante' and 'Portola'.*

**Description:**

PLANT: globose growth habit, medium to dense, medium to strong vigour, fully everbearing

LEAF: light to medium green on upper side, slightly convex in profile, medium to strong interveinal blistering, only three leaflets per leaf

TERMINAL LEAFLET: cupped profile, as long as broad to longer than broad length/width ratio, moderately oblique base, acute shape of teeth

PETIOLE: very dense pubescence, hairs pointing downwards, medium to strong anthocyanin colouration of stipules

STOLON: few to medium in number, medium anthocyanin colouration, thick, medium density of pubescence

FLOWERING: mid-season

INFLORESCENCE: positioned above foliage

FLOWER: large, calyx diameter larger than corolla, inner calyx diameter slightly larger than outer calyx

PETALS: touching to overlapping, as long as they are broad

FRUITING TRUSS: semi-erect to prostrate attitude at first picking, long

FRUIT: longer than they are broad, large to very large, bi-conical, very slight difference in shape between primary and secondary fruit, medium width band without achenes

FRUIT SURFACE: weak to medium unevenness of surface, red, strong evenness of colour, strong glossiness

ACHENES: insertion below surface of fruit

CALYX: insertion set above surface of fruit, reflexed pose of segments, larger than fruit diameter, strong adherence to fruit

FRUIT FLESH: firm to extremely firm, orange red, slightly uneven colour, weak sweetness, coarse texture when tasted, weak acidity

FRUIT HARVEST: early

REACTION TO PESTS: susceptible to highly susceptible to *Aphis* spp., susceptible to *Lygus lineolaris* (Tarnished plant bug)

REACTION TO DISEASES: moderately susceptible to Botrytis fruit rot, moderately resistant to powdery mildew, resistant to moderately resistant to leaf blight and moderately susceptible to viral diseases

**Origin and Breeding:** ‘San Andreas’ arose as the result of a cross between the varieties, ‘Albion’ and the advance selection ‘Cal 97.86-1’ conducted in 2001. ‘San Andreas’ first fruited in 2002 at the University of California Wolfskill Experimental Orchard, near Winters, California. It was selected, originally designated Cal 1.139-2 and was asexually propagated by runners. Following selection and throughout testing, the variety was designated ‘CN223’.

**Tests and Trials:** The tests and trials for ‘San Andreas’ were conducted at Krause Berry Farms, Aldergrove, British Columbia during the summer of 2008. The trials consisted of two replications of 40 plants per variety, with a plant spacing of 30 cm and a row spacing of approximately 1.07 metres.





Strawberry: 'San Andreas' (right) with reference varieties 'Albion' (left), 'Diamante' (centre left), 'Monterey' (centre) and 'Portola' (centre right)



Strawberry: 'San Andreas' (top right) with reference varieties 'Monterey' (top left), 'Portola' (top centre), 'Albion' (bottom left) and 'Diamante' (bottom right)

**Proposed denomination:** 'Sonata'  
**Application number:** 06-5430  
**Application date:** 2006/04/12  
**Applicant:** Fresh Forward Holding B. V., Wageningen, The Netherlands  
**Agent in Canada:** Smart & Biggar, Ottawa, Ontario  
**Breeder:** Egbertus Joseph Meulenbroek, Wageningen, The Netherlands

**Variety used for comparison:** 'Jewel'

**Summary:** *The leaf blistering is very strong for 'Sonata' whereas it is medium for 'Jewel'. 'Sonata' often has leaves with more than three leaflets compared to only three leaflets for 'Jewel'. The stolons of 'Sonata' are few in number and of medium thickness whereas they are medium in number and thick to very thick for 'Jewel'. The calyx diameter relative to corolla is almost the same size for 'Sonata' whereas it is larger for 'Jewel'. The flower petals are as long as they are broad for 'Sonata' whereas they are broader than they are long for 'Jewel'. 'Sonata' has orange red fruit, that are broader than longer whereas they are dark red and are longer than broader for 'Jewel'. The fruit flesh of 'Sonata' is light red of medium firmness whereas they are medium red firm flesh for 'Jewel'.*

**Description:**

PLANT: globose growth habit, medium to dense density, strong vigour, not everbearing

STOLON: few, medium anthocyanin colouration, medium thickness, medium pubescence

LEAF: medium green on upper side, semi-downwards in profile, very strong interveinal blistering, often more than three leaflets per leaf

TERMINAL LEAFLET: slightly concave when viewed in cross section, flat tip, longer than broad length/width ratio, slightly oblique base, obtuse shape of teeth

PETIOLE: dense pubescence, hairs pointing outwards, medium anthocyanin colouration of stipules

FLOWERING: mid-season

INFLORESCENCE: position level with foliage

FLOWER: large in size, calyx diameter smaller to same size as corolla, inner calyx diameter same size as outer calyx

PETALS: touching to overlapping, as long as broad

FRUITING TRUSS: semi-erect attitude at first picking, medium length

FRUIT: broader than long, medium size, conical, moderate difference in shape between primary and secondary fruit, very narrow to narrow band without achenes

FRUIT SURFACE: very weak unevenness of surface, orange red, even colour, strong glossiness

ACHENES: insertion level to above surface of fruit

CALYX: insertion level with surface of fruit, reflexed pose of segments, smaller than fruit diameter, strong adherence to fruit

FRUIT FLESH: medium firmness, light red, slightly uneven to uneven colour, medium sweetness, fine texture when tasted, weak to medium acidity

FRUIT HARVEST: mid-season

**Origin and Breeding:** The variety 'Sonata' was developed by cross-pollination in 1990 in Wageningen, the Netherlands. The female parent was 'Elsanta' and the male parent was 'Polka'. The new variety was selected from the progeny. The new variety was asexually reproduced by cuttings.

**Tests and Trials:** The trials were performed during the summer of 2008 in Trois-Rivières, Québec. The test was done on 15 meter of a raised bed covered with black plastic. Plants were planted on double rows, 30 cm between plants, and 30 cm between rows. There were three replications and 75 plants of each variety.



Strawberry: 'Sonata' (left) with reference variety 'Jewel' (right)