



APPLICATIONS UNDER EXAMINATION

APPLE

APPLE

(*Malus domestica*)

Proposed denomination: 'DS3'
Application number: 14-8455
Application date: 2014/09/11
Applicant: Doug Shefelbine, Holmen, Wisconsin, United States of America
Agent in Canada: Summerland Varieties Corp. (SVC), Summerland, British Columbia
Breeder: Doug Shefelbine, Holmen, Wisconsin, United States of America

Variety used for comparison: 'Honeycrisp'

Summary: *The internode on the one-year-old shoot of 'DS3' is shorter than that of 'Honeycrisp'. 'DS3' has a leaf blade that is narrower than 'Honeycrisp'. The fruit of 'DS3' has a medium to large eye whereas the fruit of 'Honeycrisp' has a small eye. The pattern of over colour on the fruit skin of 'DS3' is flushed, striped and mottled whereas the pattern of over colour on 'Honeycrisp' is a weakly defined flush with strongly defined stripes.*

Description:

TREE: weak vigour, ramified, spreading growth habit, fruit bearing on spurs and long shoots

ONE-YEAR-OLD SHOOT: medium thickness, medium density of pubescence on distal half, many lenticels, medium brown on sunny side

LEAF BLADE: outwards attitude in relation to shoot, medium to large length to width ratio, medium to dark green on upper side, serrate type two incisions of margin on distal half, absent or sparse pubescence on lower side

PETIOLE: small extent of anthocyanin colouration at base

FLOWER: begins flowering mid-season, dark pink on outer side at balloon stage, very large diameter with petals pressed into horizontal position, arrangement of petals is overlapping, stigmas positioned below anthers

YOUNG FRUIT: small extent of anthocyanin colouration

FRUIT: large to very large, small height to diameter ratio, conic shape, absent or weak ribbing, absent or weak crowning at calyx end, medium to large eye, long sepal, locules closed or slightly open in transverse section, late harvest maturity and eating maturity

FRUIT SKIN: absent or weak bloom and greasiness, yellow-green ground colour, very large area of over colour, medium red over colour distributed as flushed, striped and mottled, narrow to medium width of stripes, medium amount of area of russet around stalk attachment, absent or small area of russet on cheeks and around eye basin, many medium to large lenticels, medium to deep and medium to broad stalk cavity, medium to deep and broad eye basin

FRUIT STALK: medium to thick

FRUIT FLESH: firm, cream colour

Origin and Breeding: 'DS3' was discovered within a cultivated orchard located in La Cross County, Wisconsin, USA. Seeds from an open pollinated 'Honeycrisp' apple tree were collected in 1990 and planted in 1991. After a suitable growing period, 'DS3' was selected from surviving seedlings during 2002. Second generation trees were budded onto EMLA 26 rootstock and observed during 2009 and 2010 growing seasons. 'DS3' was selected for fruit size and high acidity when compared to 'Honeycrisp'.

Tests and Trials: Tests and trials for 'DS3' were conducted in 2017 and 2018 at Summerland Varieties Corp test plots, in Summerland, British Columbia. The trials consisted of 10 trees of 'DS3', grown on EMLA 26 rootstock, and 10 trees of 'Honeycrisp', grown on M9 rootstock. The trees were planted in 2014. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

Comparison table for 'DS3'

	'DS3'	'Honeycrisp'*
<i>Internode length of one-year-old shoot(cm)</i>		
mean	2.1	3.0
std. deviation	0.8	0.6
<i>Leaf blade width (cm)</i>		
mean	5.0	5.6
std. deviation	0.7	0.8

*reference variety



Apple: 'DS3' (left) with reference variety 'Honeycrisp' (right)

Proposed denomination: 'DS41'
Application number: 14-8383
Application date: 2014/07/03
Applicant: Doug Shefelbine, Holmen, Wisconsin, United States of America
Agent in Canada: Summerland Varieties Corp. (SVC), Summerland, British Columbia
Breeder: Doug Shefelbine, Holmen, Wisconsin, United States of America

Variety used for comparison: 'Honeycrisp'

Summary: *The one-year-old shoot of 'DS41' has few to many lenticels whereas the one-year-old shoot of 'Honeycrisp' has many lenticels. 'DS41' has a shorter internode length on the one-year-old shoot than that of 'Honeycrisp'. The eye on the fruit of 'DS41' is large whereas the eye on the fruit of 'Honeycrisp' is small. The aperture of the locules in the fruit in transverse section are fully open for 'DS41' whereas the aperture of the locules in the fruit in transverse section are closed or slightly open for 'Honeycrisp'.*

Description:

TREE: weak vigour, ramified, spreading growth habit, fruit bearing on spurs and long shoot

ONE-YEAR-OLD SHOOT: thin to medium thickness, sparse pubescence on distal half, few to medium number of lenticels, medium brown on sunny side

LEAF BLADE: outwards attitude in relation to shoot, medium length to width ratio, medium to dark green upper side, serrate type two incisions of margin on distal half, absent or sparse pubescence on lower side

PETIOLE: medium extent of anthocyanin colouration at base

FLOWER: begins flowering mid-season, dark pink on outer side at balloon stage, very large diameter with petals pressed into horizontal position, arrangement of petals is overlapping, stigmas positioned below anthers

YOUNG FRUIT: small extent of anthocyanin colouration

FRUIT: large, small to medium height to diameter ratio, conic shape, absent or weak ribbing, absent or weak crowning at calyx end, large eye, long sepal, locules fully open in traverse section, mid to late season harvest maturity and eating maturity

FRUIT SKIN: moderate bloom and greasiness, yellow green ground colour, very large area of over colour, medium red over colour distributed as solid flush with weakly defined stripes, narrow to medium width stripes, absent or small area of russet around stalk attachment on cheeks and around eye basin, medium to many lenticels, medium to large lenticels, medium to deep and medium to broad stalk cavity, deep and medium width eye basin

FRUIT STALK: medium to thick

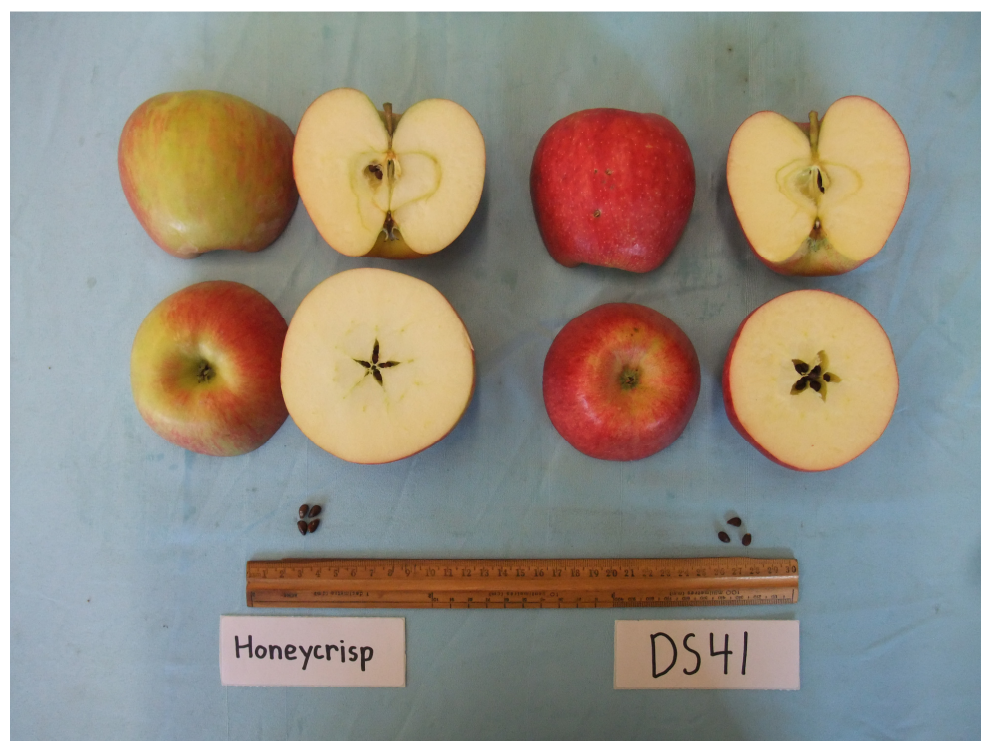
FRUIT FLESH: firm, yellowish

Origin and Breeding: ‘DS41’ was discovered within a cultivated orchard located in La Cross County, Wisconsin, USA. Seeds from an open pollinated ‘Honeycrisp’ apple tree were collected in 1990 and planted in 1991. After a suitable growing period, ‘DS41’ was selected from surviving seedlings during 2002. In August 2007, second generation trees were budded onto M26 rootstock. The principle characteristic which ‘DS41’ was selected for was date of harvest.

Tests and Trials: Tests and trials for ‘DS41’ were conducted in 2017 and 2018 at Summerland Varieties Corp test plots in Summerland, British Columbia. The trials consisted of 9 trees of ‘DS41’, grown on EMLA 106 rootstock, and 10 trees of ‘Honeycrisp’ grown on M9 rootstock. The trees were planted in 2014. Mean differences were significant at the 5% confidence probability level based on a paired Student’s t-test.

Comparison table for ‘DS41’

	‘DS41’	‘Honeycrisp’*
<i>Internode length on one-year-old shoot(cm)</i>		
mean	2.3	3.0
std. deviation	0.3	0.6
*reference variety		



Apple: 'DS41' (right) with reference variety 'Honeycrisp' (left)

Proposed denomination: 'VK71'
Application number: 13-8153
Application date: 2013/11/15
Applicant: Kevin Van Kalkeran, Oliver, British Columbia
Agent in Canada: Summerland Varieties Corp. (SVC), Summerland, British Columbia
Breeder: Kevin Van Kalkeran, Oliver, British Columbia

Varieties used for comparison: 'DS99' and 'Summerland Red Mac'

Summary: *The young fruit of 'VK71' has a large to very large extent of anthocyanin over colour whereas the young fruit of 'DS99' has a small extent of anthocyanin over colour and the young fruit of 'Summerland Red Mac' has a medium extent of anthocyanin over colour. 'VK71' has medium to large fruit whereas 'DS99' has small to medium sized fruit. The fruit skin of 'VK71' has a very large relative area of over colour whereas the fruit skin of 'DS99' has a medium to large relative area of over colour and the fruit skin of 'Summerland Red Mac' has a small to medium relative area of over colour. The over colour pattern of the fruit skin of 'VK71' is a solid flush only while that of 'DS99' is flushed, striped and mottled and that of 'Summerland Red Mac' is a solid flush with strongly defined stripes. The fruit skin of 'VK71' has many lenticels whereas the fruit skin of 'DS99' has a medium number of lenticels.*

Description:

TREE: strong vigour, ramified type, spreading growth habit, fruit bearing on spurs and long shoots

ONE-YEAR-OLD SHOOT: thin to medium thickness, medium brown on side exposed to sunlight, medium to dense pubescence on distal half, medium to many lenticels

LEAF BLADE: upwards attitude in relation to shoot, medium to large length to width ratio, medium green intensity on upper side, crenate incisions of margin on distal half, absent or sparse pubescence on lower side

PETIOLE: large extent of anthocyanin colouration of base

FLOWER: begins flowering early, dark pink on outer side at balloon stage, small to medium sized diameter with petals pressed into horizontal position, intermediate arrangement of petals, stigmas positioned above anthers

YOUNG FRUIT: large to very large extent of anthocyanin over colour

FRUIT: medium to large, large height to diameter ratio, obloid shape, moderate ribbing, absent or weak crowning at calyx end, small eye, short sepal, locules moderately to fully open in cross-section, early to mid-season harvest maturity and eating maturity

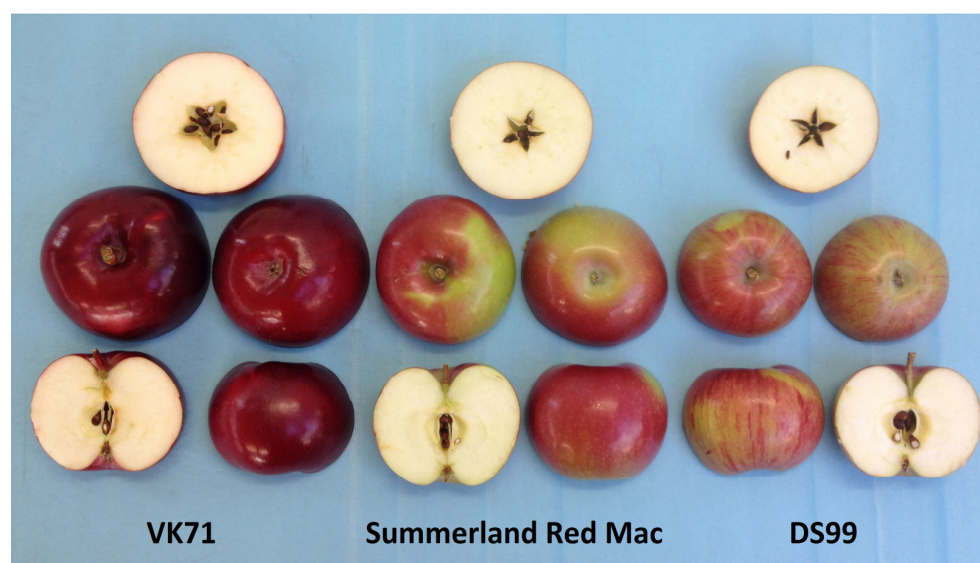
FRUIT SKIN: strong bloom, absent or weak greasiness, whitish green ground colour, very large area of over colour, dark purple red over colour distributed only as solid flush pattern, absent or small area of russet around stalk attachment, absent or small area of russet on cheeks, absent or small area of russet around eye basin, many small lenticels, shallow to medium depth and narrow to medium width of stalk cavity, shallow to medium depth and narrow to medium width of eye basin

FRUIT STALK: thick

FRUIT FLESH: soft to medium firmness, cream colour

Origin and Breeding: 'VK71' was discovered in August 2002 as a branch limb mutation from a previous tree mutation 'DS99', that was originally itself derived from a branch limb mutation of 'Summerland Red Mac'. 'VK71' was selected due to the high percent of red blush it exhibits comparison to its parent 'DS99'. 'VK71' is propagated clonally through budding and grafting techniques.

Tests and Trials: Tests and trials for 'VK71' were conducted between 2014 and 2018 at Summerland Varieties Corp. test plots, in Summerland, British Columbia. The trials consisted of 10 trees of each variety grown on M9 rootstock. The trees were planted in 2011.



Apple: 'VK71' (left) with reference varieties 'Summerland Red Mac' (centre) and 'DS99' (right)

Proposed denomination:	'Wiltens Star'
Application number:	13-7997
Application date:	2013/04/18
Applicant:	Red Jonaprince B.V., Nederweert, Netherlands
Agent in Canada:	Smart & Biggar, Ottawa, Ontario
Breeder:	W.J.F.A. Princen, Wilton Weert B.V., Weert, Netherlands

Variety used for comparison: 'Red Jonaprince'

Summary: 'Wiltens Star' has a one-year-old shoot with medium to many lenticels whereas 'Red Jonaprince' has a one-year-old shoot with few to a medium number of lenticels. The upper side of the leaf blade of 'Wiltens Star' is light to medium intensity of green whereas the leaf blade of 'Red Jonaprince' is medium to dark intensity of green. The fruit stalk on 'Wiltens Star' is longer than the fruit stalk on 'Red Jonaprince'.

Description:

TREE: weak to medium vigour, ramified type, spreading growth habit, fruit bearing on spurs and long shoots

ONE-YEAR-OLD SHOOT: medium thickness, medium brown on side exposed to sunlight, medium to dense pubescence on distal half, medium to many lenticels

LEAF BLADE: outwards attitude in relation to shoot, medium length to width ratio, light to medium green on upper side, serrate type two incisions of margin on distal half, medium density of pubescence on lower side

PETIOLE: medium extent of anthocyanin colouration at base

FLOWER: begins flowering early to mid season, dark pink on outer side at balloon stage, large diameter with petals pressed into horizontal position, intermediate arrangement of petals, stigmas positioned at the same level as anthers

YOUNG FRUIT: medium extent of anthocyanin over colour

FRUIT: large, small to medium height to diameter ratio, conic shape, absent or weak ribbing, absent or weak crowning at calyx end, medium to large eye, medium to long sepal, locules fully open in transverse section, mid-season to late harvest and eating maturity

FRUIT SKIN: moderate amount of bloom, absent or weak greasiness, no visible ground colour, very large area of over colour, dark purple red over colour distributed only as solid flush pattern, no stripes, absent or small area of russet around stalk attachment, absent or small area of russet on cheeks, absent or small area of russet around eye basin, medium number of small lenticels, shallow to medium depth stalk cavity, narrow width stalk cavity, shallow to medium depth and medium width eye basin

FRUIT STALK: medium to thick

FRUIT FLESH: firm, white

Origin and Breeding: 'Wiltens Star' was discovered late summer 1998 in Weert, the Netherlands. 'Wiltens Star' was selected for fruit yield, smooth non-spotted dark red fruit skin with most fruit covered in solid dark flush at time of harvest.

Tests and Trials: Tests and trials for 'Wiltens Star' were conducted between 2017 and 2018 at Summerland Varieties Corp. test plots, in Summerland, British Columbia. The trials consisted of 14 trees of 'Wiltens Star' and 11 trees of 'Red Jonaprince' grown on M9 rootstock. The trees were planted in 2014.

Comparison table for 'Wiltens Star'

	'Wiltens Star'	'Red Jonaprince'*
<i>Fruit stalk length(cm)</i>		
mean	3.35	2.90
std. deviation	0.77	0.90
*reference variety		



Apple: 'Wiltons Star' (left) with reference variety 'Red Jonaprince' (right)
