

Holden Stud Book

(This data was taken from John Holden's original stud book,
with some additions for clarity. Transcribed by Francesca Thoolen)

Year is date transplanted to bands.

Crosses are numbered:

H = Holden

a = 1965, b = 1966, c = 1967, etc. equals date of transplant from tubes.

1, 2, 3, etc. = entire cross, followed by a, b, etc. are individual clones of that particular cross, e.g. Hb1a

4/4 = tetraploid aril

2.2 = diploid aril

1965 and Before

Ha1	<i>I. susiana</i> X <i>I. sari</i>
Ha2	<i>I. samariae</i> X <i>I. barnumae</i> (aka 65-4)
Ha3	Eunice X <i>I. haynei</i> (aka 65-3)
Ha4	<i>I. gatesii</i> X <i>I. mariae</i>
Ha4a	DESERT GEM - R. 1967
Ha5	<i>I. gatesii</i> X <i>I. haynei</i>
Ha5a	ARABIAN KNIGHT - R. 1967
Ha6	<i>I. mariae</i> X <i>I. atropurpurea</i>
Ha6a	SPICED COFFEE - R. 1967
Ha6b	BROWN PRINCE - R. 1973
Ha7	Eunice X (<i>I. atrofusca</i> x <i>I. mariae</i>)
Ha8	<i>I. gatesii</i> X <i>I. sari</i>
Ha8a	ABOU BEN ADHEM - R. 1967
Ha9	<i>I. gatesii</i> X <i>I. auranitica</i> (brown) (65-12)
Ha10	Sylphide X <i>I. haynei</i>
Ha11	<i>I. gatesii</i> X <i>I. calcaria</i>

- Ha12 *I. gatesii* X *I. hermona*
- Ha13 *I. haynei* X *I. barnumae*
- Ha14 *I. samariae* X Austin 510-OY-60
- Ha15 *I. gatesii* X unknown onco sdlg
- Ha16 *I. susiana* X *I. atropurpurea*
- Ha17 *I. susiana* X *I. basaltica*
- Ha18 (Austin 510-OY ("Big Sig") x #7) X Austin 510-OY-60
- Ha19 Lost label
- Ha19a **ROYAL AFFAIR** - R. 1973
- Ha20 Ha2 X Austin 510-OY-60
- Ha20b **LITTLE KID** - R. 1975
- Ha21 *I. samariae* X *I. camillae*
- Ha22 *I. lortetii* X *I. iberica*
- Ha22a **IBERIAN GEM** - R. 1967
- Ha23 *I. susiana* X unknown onco
- Ha23a **TWICE NICE** - R. 1974
- Ha24 *I. lortetii* X Ha11 - see also Ha27
- Ha25 (*I. samariae* x *I. nigricans*) X *I. barnumae*
- Ha26 *I. benjaminii* X *I. haynei*
- Ha27 *I. lortetii* X Ha11 - see also Ha24
- Ha28 Austin 510-OY-60 X *I. sari*
- Ha29 *I. haynei* X *I. benjaminii*
- Ha30 Sylphide X Austin 510-OY-60
- Ha31 *I. lortetii* X (*I. haynei* x *I. auranitica*)

- Ha32 *I. lycotis* X Ha11: (*I. gatesii* x *I. calcaria*)
Ha32a **INDIGENT ARAB** - R. 1973
- Ha33 Cloth of Gold X *I. korolkowii*
- Ha34 *I. nigricans* X *I. atrofusca*
- Ha35 *I. elegantissima* X *I. auranitica* Tel Jaffna

1966 = Hb

Hb1	<i>(I. gatesii x I. nigricans)</i> X Ha9
Hb2	Ha2 X Ha1
Hb3	Ha2 X Ha13
Hb4	<i>(I. gatesii x I. nigricans)</i> X PF (Paul Furse) 3480
Hb5	El Kizar X Ha2 - (killed by weed spray)
Hb6	<i>(I. samariae x I. nigricans)</i> X Ha9
Hb7	Ha9 X Ha3
Hb8	<i>(I. gatesii x I. nigricans)</i> X Ha9
Hb9	<i>(I. gatesii x I. nigricans)</i> X Ha13
Hb10	Ha2 X Kerr 56-8
Hb11	Ha10 X Ha12
Hb11a	KING'S FANCY - R. 1977
Hb11c	
Hb12	Ha3 X sib (65-3)
Hb13	Ha8 X <i>(I. samariae x I. nigricans)</i>
Hb14	Ha12 X ((Austin W118 x Austin OY-40) x Kerr's Light Blue)
Hb15	Ha3 X sib
Hb16	<i>(I. gatesii x I. nigricans (65-8))</i> X PF (Paul Furse) 3480
Hb17	Ha2 X sib (65-4) - see also Hb22
Hb18	Ha2 X Ha3 (65-3)
Hb19	Ha8 X <i>(I. gatesii x I. auranitica)</i> (Spotted)
Hb20	Ha2 X Ha8
Hb21	Ha3 X Kerr 56-8

Hb22	Ha2 X sib (65-4) - see also Hb17
Hb23	<i>I. korolkowii concolor</i> X Austin 510-OY-60 - see also Hb56
Hb23a	SHALAH - R. 1974
Hb23b	SHAHEEN - R. 1974
Hb24	<i>I. korolkowii concolor</i> X Judean Silver
Hb25	Ha8 X PF (Paul Furse) 3480
Hb26	Ha10 X PF (Paul Furse) 3480
Hb27	Luna X <i>I. nazarena</i>
Hb28	Ha8 X (<i>I. gatesii</i> x <i>I. nigricans</i>)
Hb29	(<i>I. gatesii</i> x <i>I. nigricans</i>) X (<i>I. samariae</i> x <i>I. nigricans</i>)
Hb30	Sylphide X <i>I. antilibanotica</i> (Bludan)
Hb31	<i>I. sari</i> X <i>I. gatesii</i> (red sig)
Hb32	Kerr 95 X 64-1: (<i>I. gatesii</i> x <i>I. sari</i> (red sig))
Hb33	Persian Bronze X Austin W-157-OY
Hb34	<i>I. samariae</i> X <i>I. atrofusca</i>
Hb35	Luna X Sylphide
Hb36	Sylphide X <i>I. lycotis</i>
Hb37	Persian Bronze X Judean Cream
Hb38	Eunice X Austin 510-OY-60
Hb39	<i>I. haynei</i> X <i>I. atrofusca</i>
Hb40	Sylphide X <i>I. sari</i> (BrGn)
Hb41	<i>I. basaltica</i> X Austin 513-OY
Hb42	Theseus X <i>I. gatesii</i>
Hb43	Kalifa Fatima X 65-9 (big sig)

- Hb44 65-9 (big sig) **X** self
- Hb45 Andromache **X** *I. basaltica*
- Hb46 Artemis **X** *I. basaltica*
- ~~Hb47 *I. auranitica* Tel Jaffna **X** (*I. gatesii* x *I. auranitica* (spotted))~~
- ~~Hb48 Sylphide **X** self~~
- ~~Hb49 (*I. samariae* x *I. nigricans*) **X** (*I. gatesii* x *I. nigricans*)~~
- ~~Hb50 Kerr 95 **X** Sylphide~~
- ~~Hb51 (New Snow x *I. stolonifera leichtlinii*) **X** Jabal Kerak~~
- Hb52 2/4 (New Snow x *I. stolonifera leichtlinii*) **X** Kalifa Gulnare
- Hb53 2/4 (New Snow x *I. stolonifera leichtlinii*) **X** Kalifa Baltis
- ~~Hb54 Luna **X** Judean Cream~~
- ~~Hb55 Theseus **X** Judean Bronze~~
- ~~Hb56 *I. korolkowii concolor* **X** Austin 510-OY-60 - see also Hb23~~
- ~~Hb57 (Sylphide x *I. haynei*) **X** sib~~
- ~~Hb58 *I. gatesii* **X** Paradise Pink~~
- ~~Hb59 *I. nigricans* **X** Austin (?) Bk 40-O~~
- ~~Hb60 Ulysses **X** *I. nigricans*~~
- ~~Hb61 Theseus **X** *I. nigricans*~~
- ~~Hb62 *I. gatesii* **X** *I. auranitica* (brown)~~
- ~~Hb63 Teucros **X** *I. nigricans*~~
- ~~Hb64 Thor **X** *I. nigricans*~~
- ~~Hb65 Judean Bronze **X** Austin 640-OY~~
- ~~Hb66 *I. gatesii* **X** *I. susiana*~~

Hb67 0Y-42 X Austin 513-OY

1967 = Hc

All of the Hc's were killed with weed spray.

1968 = Hd

Hd1	Royal Affair X Ha17
Hd2	(<i>I. lortetii</i> x <i>I. iberica</i>) X (Ha11 x <i>I. antilibanotica</i>)
Hd3	Ha33 X Kalifa Hirfa
Hd4	Ha13 X <i>I. atrofusca</i>
Hd4b	VULCAN'S FORGE - R. 1973
Hd4c	SINAYA - R. 1973
Hd5	Ha2 X Ha6
Hd5b	SPECKLED DELIGHT - R. 1975
Hd5c	NOMAD'S CHILD - R. 1975
Hd6	Ha14 X Ha18 - see also Hd29
Hd6b	DESERT YELLOW - R. 1975
Hd6c	FAIRY FANTASY - R. 1976
Hd7	Ha4 X Ha1
Hd8	Sylphide X <i>I. auranitica</i> Tel Jaffna See also Hf36 (used all as sub on 1970 Plant Sale)
Hd9	Sylphide X <i>I. paradoxa</i>
Hd10	<i>I. lycotis</i> X <i>I. gatesii</i>
Hd11	Ha13 X Ha17
Hd12	Ha28 X Ha14
Hd12e	LADY SUNSHINE - R. 1976
Hd13	<i>I. antilibanotica</i> X <i>I. susiana</i> - reciprocal Hf30
Hd14	(<i>I. mariae</i> x <i>I. nazarena</i>) X Ha26
Hd15 3/4	Persian Pansy X Kalifa Gulnare
Hd16 3/4	Persian Pansy X Jabal Kerak
Hd17 2/3	Artemis X Kalifa Gulnare
Hd18 2/3	Kalifa Kashan X Ha14

Hd19	Royal Affair X Ha26
Hd20	Ha17 X Ha3
Hd21	PF (Paul Furse) 3480 X (<i>I. samariae</i> x <i>I. nigricans</i>)
Hd22	Ha17 X Ha28
Hd23	Ha21 X Ha22
Hd24	Ha21 X <i>I. paradoxa</i>
Hd25	Ha2 X Ha18
Hd26	Ha21 X (Ha11 x <i>I. antilbanotica</i>)
Hd27	<i>I. paradoxa</i> X <i>I. auranitica</i> Tel Jaffna - reciprocal of Hf33
Hd28	<i>I. paradoxa</i> X <i>I. gatesii</i>
Hd29	Ha14 X Ha18 - See also Hd6
Hd30	Ha21 X <i>I. susiana</i>
Hd31	<i>I. samariae</i> X <i>I. meda</i> (Aff JCA 3157) - reciprocal of Hf39
Hd31a	AMBOY AGATE - R. 1975
Hd32	Ha1 X Ha3
Hd33	Ha22 X Ha14
Hd34	Ha14 X (<i>I. mariae</i> x <i>I. nazarena</i>)
Hd35	<i>I. gatesii</i> X Elvira
Hd36	Ha1 X Ha16
Hd37	Ha1 X (<i>I. gatesii</i> x <i>I. mariae</i>)
Hd38	Sylphide X <i>I. paradoxa</i>
Hd39	(<i>I. auranitica</i> x <i>I. gatesii</i>) X <i>I. auranitica</i>
Hd40	((<i>I. gatesii</i> x <i>I. sari</i>) x <i>I. sari</i>) X (<i>I. gatesii</i> x <i>I. mariae</i>)

~~—— Hd41 —— Ha13 X *I. paradoxa*~~

~~—— Hd42 —— *I. auranitica* X PF (Paul Furse) 3480~~

~~—— Hd43 —— (*I. lortetii* x *I. iberica*) X (*I. samariae* x Austin 510-OY-60)~~

~~—— Hd44 —— ((*I. gatesii* x *I. calcaria*) x *I. antilibanotica*) X *I. paradoxa*~~

1969 = He

He1	Hb51 X W6-22-IMK
He2	Clara X Hb11 - see also He6
He3	<i>I. paradoxa</i> X Hb19
He4	Hb19 X Spiced Coffee
He5	Hb19 X Ha20
He6	Clara X Hb11 - see also He2
He7	Amphion X Hb11
He7a	GRANITE WELLS - R. 1978
He8	Hb19 X sib - see also Hf8 and Hf13
He9	Hb51 X MG11
He10	Ha33 X Tatai Pasha
He11	Hb51 X MG13 Bal G3
He12	Ha33 X Sal Ab-17
He13	(New Snow x <i>I. stolonifera leichtlinii</i>) X Real Harmony - sterile
He14	Hb51 X 10 Sal W7-J
He15	Hb51 X W6-22-IMK
He16	Hb51 X 4 Sal 10 GN-J
He17	Hb51 X MG10

1970 = Hf

Hf1	<i>I. samariae</i> X (<i>Ha11</i> x <i>I. antilibanotica</i>)
Hf2	<i>Ha13</i> X sib
Hf3	<i>Ha17</i> X sib
Hf4	(New Snow x <i>I. stolonifera leichtlinii</i>) X El Kizar
Hf5	<i>Ha13</i> X <i>I. auranitica</i> Tel Jaffna
Hf6	<i>Hb19</i> X <i>I. urmiensis</i> - see also Hg46
Hf7	<i>Ha14b</i> X <i>Hb67</i>
Hf8	<i>Hb19</i> X <i>Hb19b</i> - see also He8 and Hf13
Hf9	<i>Hb19b</i> X <i>I. auranitica</i> Tel Jaffna
Hf9b	BROWN WARRIOR - R. 1975
Hf10	<i>I. auranitica</i> Tel Jaffna X <i>I. urmiensis</i>
Hf10b	VALLEY CHILD - R. 1976
Hf11	<i>I. gatesii</i> X <i>I. urmiensis</i>
Hf12	<i>Hb4</i> X <i>Hb16a</i>
Hf13	<i>Hb19</i> X sib - see also He8 and Hf8
Hf14	Persian Pansy X Shockey 158-9a
Hf15	<i>Hb67</i> X <i>Ha18b</i>
Hf16	<i>I. auranitica</i> Tel Jaffna X Clara
Hf17	<i>I. auranitica</i> Tel Jaffna X Spiced Coffee
Hf17c	BROWN GOLD - R. 1975
Hf17d	ROCKEYE - R. 1976
Hf18	<i>I. auranitica</i> Tel Jaffna X <i>I. samariae</i>
Hf19	<i>I. auranitica</i> Tel Jaffna X <i>Hb16</i> - see also Hf38
Hf20	<i>I. atrofusca</i> X Luna

Hf21	Ha11a X <i>I. auranitica</i> Tel Jaffna
Hf22	Abou Ben Adhem X <i>I. auranitica</i> Tel Jaffna
Hf23	<i>I. haynei</i> X Ha13
Hf24 Hf24a	<i>I. samariae</i> X Desert Gem MOJAVE QUEEN - R. 1975
Hf25 Hf25a	<i>I. gatesii</i> X Ha20b BIG KID - R. 1976
Hf26	Ha7 X Elvira
Hf27	<i>I. gatesii</i> X <i>I. korolkowii concolor</i>
Hf28	Ha17a X Ancilla
Hf29	Ha12 X Ha4
Hf30	<i>I. susiana</i> X <i>I. antilibanotica</i> - reciprocal of Hd13
Hf31	Ha11a X Desert Gem
Hf32	<i>I. gatesii</i> x <i>I. samariae</i>
Hf33	<i>I. auranitica</i> Tel Jaffna X <i>I. paradoxa</i> - reciprocal of Hd27
Hf34	Ha13a X <i>I. gatesii</i>
Hf35 Hf35c	<i>I. auranitica</i> Tel Jaffna X <i>I. polakii</i> (JCA 2236) BRIGHT MAHOGANY - R. 1975
Hf36	Sylphide X <i>I. auranitica</i> Tel Jaffna - see also Hd8
Hf37	Hb19 X Ha27a
Hf38	<i>I. auranitica</i> Tel Jaffna X Hb16 - see also Hf19
Hf39	<i>I. meda</i> (Aff JCA 3157) X <i>I. samariae</i> - reciprocal of Hd31
Hf40	Ha27a X <i>I. auranitica</i>
Hf41	Moleskin 2101 X 2173

- Hf42 *I. barnumae* TC X Kalifa Hirfa
- Hf43 *I. polakii* 2236 X *I. samariae*
Hf43d **BRIGHT BONNET** - R. 1975
- Hf44 *I. susiana* X (*I. benjaminii* x *I. haynei*)
- Hf45 Ha31 X sib
- Hf46 Ha12a X Ha27a

1971 = Hg

"#B" = Roy Brizdendine made crosses for John Holden using his pollen

- Hg1 Ha13a **X** K x J-G
- ~~Hg2~~ ~~(*I. korolkowii concolor* x *I. susiana*) **X** Hd26~~
- ~~Hg3~~ ~~Ha13a **X** MG 13 Bal C3~~
- Hg4 ((Jal Bal 5 x Tatai B) x Sylphide) **X** Hb21 - **#B2**
- Hg5 ((Imam Sal 9 x Bal Sal) x Syrian Moon) **X** Hb19 - **#B3**
- Hg6 *I. korolkowii concolor* **X** Hd22 - **#B6**
- Hg7 ((Kalifa Gulnare x (Jal Bal 5 x Tatai B)) x ((Kalifa Hirfa x Gul Mid 6) x (Sal 3-1))) **X** Ha13
- Hg8 ((Kalifa Gulnare x Jabal Kerak) x ((Kerr 53-44 x Austin 510-OY-40) x W118)) **X** Hb11a
- Hg9 (Kalifa Gulnare x Jabal Kerak) **X** Hb18
- Hg10 (((Jal Bal 5 x Tatai B) x Jallah Ad Din) x (Tatai Pasha x Imam Salah)) **X** Ha14
- Hg11 ((Mg 10 x (Mg 10 x Sal)) x WO7) **X** Hb18
- ~~Hg12~~ ~~(*I. korolkowii concolor* x *I. susiana*) **X** Hb11~~
- Hg13 (B38-66: ((CGW linebred sdlg x Jallah Ad Din) x (Imam Salah x (Jal Bal 13 x _____))) **X** H _____
- ~~Hg14~~ ~~*I. korolkowii concolor* **X** Hd26 - **#B14**~~
- Hg15 Hb11 **X** Hd25c
- Hg16 Hd25 **X** Persian Embroidery
- Hg17 *I. korolkowii concolor* **X** (*I. susiana* x *I. mariae*)
- Hg18 *I. korolkowii typica* **X** Ha1
- Hg19 Ha14 **X** Luna

Hg20	Hd11 X sib
Hg21	Artemis X Andromache
Hg22	Easter Holiday X (<i>I. mariae</i> x <i>I. atropurpurea</i>) - Gantz made cross
Hg23	Andromache X (<i>I. susiana</i> x <i>I. sari</i>)
Hg24	Ha13b X (Sal W7R x W3 Sal A)
Hg25	Ha14 X (Ha11 x <i>I. antilbanotica</i>)
Hg26	Ha14a X Hd25c
Hg27	Hd3 X ((Im Sal 9 Bal Sal) x Syrian Moon)
Hg28	Hd26e X (MG 10 Sal x W7U)
Hg29	Hd4b X (K x J) - cancelled out
Hg30	Hb4a X Werckmeister sdlg.
Hg31	Hd4b X (K x J) - cancelled out
Hg32	Hb11 X (Mg 10 Sal x W7U)
Hg33	Hb9c X (AB-BG x Sal A6A)
Hg34	Hd25 X (AB-GB x Sal A6A)
Hg35	Hb20a X (MG 13 Bal C3)
Hg36	Ha13a X <i>I. nigricans</i>
Hg37	Hd4 X sib
Hg38	Hb12 X (10 Sal W7J x Jab Im B)
Hg39	Hb18a X (MG 13 Bal C3)
Hg40	Hb9b x <i>I. atrofusca</i>
Hg41	Hb9a X <i>I. korolkowii</i> Brown & Green
Hg42	Hb9c X Hd4b

Hg43	Lost identity - could be Hg42 or Hg44
Hg44	Hb19 X <i>I. samariae</i>
Hg45	Hd27 X Hb19
Hg46	Hb19 X <i>I. urmiensis</i> - see also Hf6
Hg47	Hb11c X ACW 721
Hg48	Hb9c X ACW 721G
Hg49	Hd10 X <i>I. samariae</i> - see also Hg54
Hg50	Hb16 X <i>I. nigricans</i>
Hg51	Hb11 X <i>I. urmiensis</i>
Hg52	Hb11 X Luna
Hg53	Ha20 X Ha4
Hg54	Hd10 X <i>I. samariae</i>
Hg55	Hb11 X sib
Hg56	<i>I. urmiensis</i> X Hd25c (yellow)
Hg57	Hd20 X sib
Hg58	Hb23 X sib (or Persian Embroidery)
Hg59	Hb23 X Persian Embroidery
Hg60	Hd4 X Ha23a

1971 = AH
Andrew Houck seedlings willed to ASI –
All numbered AH

- ~~AH1~~ ~~(*I. susiana* x Judean Cream) X *I. samariae*~~
- ~~AH2~~ ~~((*I. lortetii* x *I. auranitica*) x W83-O) X *I. susiana*~~
~~= Houck 69-103~~
- ~~AH3~~ ~~(*I. lortetii* x *I. susiana*) X *I. gatesii*~~
- AH4 Clark 63C20: (Kerr 55-1 x Kerr 55-14) X (*I. susiana* x Judean Cream)
- ~~AH5~~ ~~Kerr 55-9A X Clark 63C20~~
- ~~AH6~~ ~~Kerr 56-4-O~~
- AH7 (*I. susiana* (M) x *I. lortetii*) X (*I. susiana* x *I. gatesii*)
 = Houck F48
- ~~AH8~~ ~~Kerr 55-9A X *I. urmiensis*~~
- AH9 Bagdad Beauty X Clark sdlg.: (*I. atrofusca* x *I. nazarena*)
- ~~AH10~~ ~~Austin W83-O: (*I. atropurpurea* x *I. jordana*)~~
- ~~AH11~~ ~~1-Kel - OV x 41-O-1~~
- AH12 Kerr 55-9A X (*I. auranitica* x *I. lortetii*) ? - 3 tags on one wire with
 same plants but different orders
- ~~AH13~~ ~~Kerr OM265 Rich OM = once mixed Kerr~~
- ~~AH14~~ ~~Austin W83-O X (*I. samariae* x Mx7-O-Dk)~~
- ~~AH15~~ ~~Austin W83-O X (*I. samariae* x Mx7-O-Lt)~~
- AH16 Bushey B66110: (Austin Mx7: (*I. susiana* x *I. gatesii*) X Austin
 Mx12: (*I. hermona* x *I. susiana*))
- AH17 Bagdad Beauty X *I. barnumae* TC
- AH18 ((O-15 x 540) x *I. susiana*) X Clark 63C20C: (Peace Prize)
 = Houck 69-105

- ~~AH19~~ ~~(*I. susiana* x Judean Cream) X Judean Cream~~
= Houck 68-25
- AH20 (*I. susiana* x Judean Cream) X *I. samariae*
= Houck F43
- AH21 *I. atrofusca* X *I. nazarena* = Clark sdlg.
- ~~AH22~~ **'Our Suzy'**
- AH23 ((*I. lortetii* x *I. auranitica*) x Kerr 55-9A) X ((*I. lortetii* x *I. susiana*) x
I. gatesii)
= Houck 68-58A - B4C - 3 clones, same cross
- AH24 *I. susiana* X (*I. lortetii* x (*I. susiana* x *I. gatesii*))
- ~~AH25~~ ~~(Austin Mx7-O x Austin Mx12) X WOW: (Clark 63C22: (*I. gatesii* x~~
~~Austin X-O)~~
= Houck 70-18A
- ~~AH26~~ Austin AH32
- AH27 (Austin W83-O x ?) X *I. barnumae* = Houck 68-21
- ~~AH28~~ O sdlg 1 X (*I. lortetii* x (*I. susiana* x *I. gatesii*))
= Houck F47
- AH29 (Austin Mx7-O x (*I. samariae* x Austin W83-O)) X *I. hermona*
= Houck 68-50
- AH30 Clark sdlg #1 X (*I. lortetii* x (*I. susiana* x *I. gatesii*))
- AH31 *I. polakii* (2188) X *I. gatesii*
= Houck F27
- AH32 Bushey B66T3 (orphan series) X *I. basaltica?* or *I. hermona?*
= Houck 68-28

Survivors of the above AH's were all sold on the ASI Plant Sale.

1972 = Hh

Hh1	Ha20b X (Ha11 x <i>I. antilibanotica</i>)
Hh2	<i>I. lycotis</i> (3212) X Kashan
Hh3	Hb25c X Khalil Effendi
Hh4	Hd23a X <i>I. pumila</i> Y9C
Hh5	Hd37 X <i>I. pumila</i> Y9C
Hh6	Hd32 X <i>I. pumila</i> Y9C
Hh7	Hf31 X (<i>I. reichenbachii</i> x <i>I. balkana</i>)
Hh8	Hf19 X <i>I. croatica</i> Y21
Hh9	<i>I. auranitica</i> X <i>I. croatica</i> Y21
Hh10	Hf9 X Adin
Hh11	Hf19 X Kashan
Hh12	<i>I. auranitica</i> X Kalifa Kashan
Hh13	<i>I. auranitica</i> X Tatai Pasha
Hh14	Hf10 X Tatai Pasha
Hh14a	DESERT BUTTERCUP - R. 1978
Hh15	Hf7 X Kahlil Effendi
Hh16	Hd26b X (1a Sal W7K x JE-2)
Hh17	Hd27 X Tatai Pasha
Hh18	Hd26e X (K x J-K)
Hh19	Clara X (1a Sal W7K x JE-2)
Hh20	Hf17 X Kahlil Effendi
Hh21	Ha31b X (Sal x Mid Gul)

Hh22	Hf17 X Tatai Pasha
Hh23	Ha31b X (K x J-K)
Hh24	Hd25 X (Sal Im Sal 21 x Almost) - see also Hh27
Hh25	Hd26g X (Sal Im Sal 21 x Almost) (70-2)
Hh26	Hd21 X Katril
Hh27	Hd25 X (Sal Im Sal 21 x Almost) - see also Hh24
Hh28	Hd26 X Im Sal Bal Sal 13
Hh29	Hd25a X (Jab Im x Sal Im)
Hh30	Hd37 X Im Sal Bal Sal 13
Hh31	Hd25b X Im Almost (70-)
Hh32	Hd26 X Wilkes sdlg.: (1a Sal W7K x JE-2 = ((Imam Salah x Jabal Kerak) x unknown))
Hh33	Ha20a X Hf7a
Hh33a	TRAFFIC JAMMER - R. 1975
Hh34	<i>I. gatesii</i> X <i>I. paradoxa</i> Choschab
Hh35	<i>I. gatesii</i> X <i>I. auranitica</i> Tel Jaffna
Hh36	Vulcan's Forge X Hd25a
Hh37	Ha20b X Vulcan's Forge
Hh38	Hd4b X Hd25e
Hh39	Hf9 X sib
Hh40	Hb11c X Fairy Fantasy
Hh41	Ha27b X Ha31a
Hh42	Ha20b X Ha20a
Hh43	Hd10 X Hf10

Hh44	Hd10 X sib
Hh45	Dusky Nomad (<i>I. lycotis</i> (JCA3212)) X <i>I. paradoxa</i> Choschab
Hh46	Hf9 X Hf10
Hh46a	DESERT PATINA - R. 1979
Hh47	Dusky Nomad (<i>I. lycotis</i> (JCA3212)) X <i>I. samariae</i>
Hh48	Dusky Nomad (<i>I. lycotis</i> (JCA3212)) X <i>I. auranitica</i>
Hh49	Hd25 X Ha31a
Hh50	Hf43 X Hd25e
Hh51	Hd25c X Hd25e
Hh52	Hd22 X <i>I. korolkowii</i> Brown and Green
Hh53	Hd22 X <i>I. korolkowii violacea</i>
Hh53a	NALCADA - R. 1978
Hh54	Hd22 X <i>I. korolkowii concolor</i>
Hh55	Hf9 X Ha20b
Hh56	((Gul Mid 12 x Kerak) x (Salah x Tatai Pasha)) X Hf43 cross made by Roy Brizendine for J Holden
Hh57	((Imaret x Imam Salah) x ((Jallah ad Din x Kalifa Baltis) x Jabal Kerak)) X Hf35
Hh57a	MOJAVE PEARL - R. 1978
Hh58	Hf43 X sib
Hh59	Hd4c X Hd34a
Hh60	Hf7 X Hf7a
Hh61	Hf35 X Hf43
Hh62	Hd6a X Hd25e
Hh63	Hd22 X (<i>I. korolkowii concolor</i> x (<i>I. gatesii</i> x <i>I. nigricans</i>))
Hh64	Ha31a x Hf43

Hh65	He5a X Hd25c
Hh66	Hf7 X Hd6a
Hh67	Hf33 X Kahlil Effendi
Hh68	Hd26g X hd26b
Hh69	Hd25 X <i>I. korolkowii violacea</i>
Hh70	Hd4 X (<i>I. korolkowii concolor</i> x (<i>I. gatesii</i> x <i>I. nigricans</i>))
Hh71	Hd37 X <i>I. korolkowii violacea</i>
Hh72	Hd4 X <i>I. korolkowii concolor</i>

1973 = Hi

unnumbered	DUSKY NOMAD - R. 1973 Selected clone of JCA3212 (a natural hybrid collected by J. Archibald in Persian Azerbaijan) affiliated with <i>I. lycotis</i> .
Hi1	Hf7b X Amber Etching - cancelled out
Hi2	Hf9 X Amber Etching
Hi3	Brown Prince X Amber Etching
Hi4	Hf4 X Tatai Pasha
Hi5	(<i>I. benjaminii</i> x <i>I. haynei</i>) X <i>I. nazarena</i>
Hi6	Hd19 X <i>I. nazarena</i>
Hi7	Hf5a X sib
Hi8	Hf43 X Royal Affair
Hi9	Hg56a X Royal Affair
Hi10	Royal Affair X Hd12e
Hi11	Royal Affair X <i>I. hermona</i>
Hi12	Hf19a X Hf10a
Hi13	Hd31 X sib
Hi14	Hf10c X Royal Affair
Hi15	Hd25h X Royal Affair
Hi16	Hf10a X Hg56
Hi17	(<i>I. samariae</i> x <i>I. nigricans</i>) X (<i>I. gatesii</i> x <i>I. haynei</i>)
Hi18	(<i>I. gatesii</i> x <i>I. haynei</i>) X <i>I. antilbanotica</i>
Hi19	(<i>I. samariae</i> X <i>I. barnumae</i>) X Ha34

Hi20	<i>I. iberica</i> X Hd13
Hi21	Hf17 X Hf10a
Hi22	Hf11 X Hf10
Hi23	Hf11 X <i>I. auranitica</i>, clone 1
Hi24	(<i>I. mariae</i> x <i>I. nazarena</i>) X <i>I. nigricans</i>
Hi25	<i>I. iberica</i> x <i>I. nazarena</i>
Hi26	Hf11 X Hd25
Hi27	Hf9 X Hf11
Hi28	Hd5c X Hd19a
Hi29	<i>I. polakii</i> X (Austin 510-OY-60 x <i>I. sari</i>)
Hi30	Sylphide X self
Hi31	<i>I. urmiensis</i> X <i>I. samariae</i>
Hi32	<i>I. polakii</i> X Ha18a
Hi33	<i>I. polakii</i> X Hb17c
Hi34	<i>I. polakii</i> X Hb11
Hi35	(<i>I. haynei</i> x <i>I. benjaminii</i>) X (<i>I. mariae</i> x <i>I. nazarena</i>)
Hi36	(<i>I. mariae</i> x <i>I. nazarena</i>) X <i>I. hermona</i>
Hi37	<i>I. auranitica</i> Tel Jaffna X <i>I. elegantissima</i>
Hi38	Hf17 X Hf10c
Hi39	Hf17 X Royal Affair
Hi39c	DESERT BUTTE - R. 1981
Hi40	Hf9 X <i>I. auranitica</i> , clone 1
Hi41	Hf10c X Hf9d
Hi42	Indigent Arab X Hf17

- Hi43 *I. gatesii* X *I. auranitica*, clone 1
- Hi44 Hb19 X Hb16a
- Hi45 Arabian Knight X Desert Gem

1974 = Hj

Hj1	Hh8 X sib
Hj2	Hb11a X 10 Sal W7 x Arjuna (70-2)
Hj3	Hb21a X Hh32 (2/3)
Hj4	Hf17 X <i>I. korolkowii concolor</i>
Hj5	Hf10 X Hf17
Hj6	He5 X <i>I. korolkowii concolor</i>
Hj7	Royal Affair X <i>I. aphylla</i> (dark violet)
Hj8	He7 X MB Sal x W7-l
Hj9	Hb16 X (Syrian Moon x <i>I. auranitica</i>)
Hj10	Royal Affair X (10 Sal W7 x Arjuna Aga) - (70-2)
Hj11	Hf16 X Welcome Reward
Hj11b	KASBAH QUEEN - R. 1978
Hj12	He5a X Fairy Fantasy
Hj13	Hd12c X Desert Yellow
Hj14	Hf43 X Hd34a
Hj15	Hf10 X <i>I. auranitica</i> Tel Jaffna
Hj16	Hf9 X <i>I. mariae</i>
Hj17	Hh32 (2/3) X Vulcan's Forge
Hj17a	IBERIAN QUEEN - R. 1979
Hj18	Hf35 X ((MG Sal x W7) x W7-l)
Hj19	He5a X <i>I. korolkowii concolor</i>
Hj20	ACW721 X Vulcan's Forge
Hj20a	ORD MOUNTAIN - R. 1982

- Hj21 Hb16a X Vulcan's Forge
- Hj22 *I. auranitica* Tel Sbihi ('TS Gold') X Hd2a
- Hj23 Ha13 x *I. paradoxa*
- Hj24 Hd25 X (10 Sal W7 x Arjuna Aga) - (70-2)
- Hj25 Hd6 X MG Sal W7 x W3 Sal A-72
- ~~Hj26 *I. auranitica* Tel Jaffna X 10 Sal W7-5~~
- Hj27 Hh35 X Hd2a
- Hj28 Hf37a X Hf10
- Hj29 *I. samariae* X *I. paradoxa*
- Hj30 *Aur[anitica]* VII X *I. auranitica* Tel Sbihi ('TS Gold')
- Hj31 He5 X Desert Yellow
- Hj32 Hf43b X *I. lortetii*
- Hj33 Hf17b X Hd2a
- Hj34 *I. paradoxa* X Hb16a
- Hj35 Hd30 X (10 Sal W7 x Arjuna Aga)
- Hj36 Hd30 X (K x J-K)
- Hj37 Hd3 (2/3) X Welcome Reward
- Hj38 Hb9c X Hh8
- Hj39 Hf17 X Hh11 (2/3)
- Hj40 Hf17 X Welcome Reward
- Hj41 Hf31 X *I. lortetii*
- Hj42 Hf31 X Hd2a
- Hj43 Hf11 X *I. auranitica* Tel Sbihi ('TS Gold')

Hj44	Bright Mahogany X Ha34
Hj45	Hd34a X Ha34
Hj46	Hf37 X <i>I. lortetii</i>
Hj47	Hf35 X <i>I. lortetii</i>
Hj48	Bushey B66F X <i>I. lortetii</i>
Hj49	Ha27 X <i>I. lortetii</i>
Hj50	Hd21 X Vulcan's Forge
Hj51 Hj51b	Hd25b X (Syrian Moon x <i>I. auranitica</i> Tel Jaffna) LEBANESE LADY - R. 1978
Hj52	<i>I. polakii</i> X <i>I. balkana</i> OR Hf9 X Hf35
Hj53	He5 X Hf35
Hj54	Hf37a X Hd2a
Hj55	<i>I. auranitica</i> KM (Kafir Mayamas) X Hf10
Hj56	Hb11 X <i>I. polakii</i>
Hj57	Hf17d X <i>I. polakii</i>
Hj58	Desert Yellow X Nomad's Child
Hj59	Hf18 X <i>I. samariae</i>
Hj60	Hb9c X Hb16a
Hj61	Hf4 (2/4) X Hd12f
Hj62	Royal Affair X Shalah
Hj63	Royal Affair X Welcome Reward
Hj64	Brown Gold X Hf10
Hj65	Hf16 X Rockeye

Hj66	Hf10 X <i>I. auranitica</i> Tel Jaffna
Hj67	He5 X Desert Yellow
Hj68	<i>I. auranitica</i> Tel Sbihi ('TS Gold') X Hd2a
Hj69	Hf22 X sib
Hj70	Hf5 X Vulcan's Forge
Hj71	Hd10 X Hd27
Hj72	Shalah X <i>I. bostrensis</i>
Hj73	Hb17c X sib
Hj74	Hd13 X sib
Hj75	Sinaya X Ha34
Hj76	Hb27 X Hh36
Hj77	Hb17c X sib
Hj78	Hd10a X Indigent Arab
Hj79	Indigent Arab X Hf17
Hj80	Hd27 X Hf19
Hj81 ?	Hd6 X Hf15
Hj82 ?	Hd26 X Hd13
Hj82 ?	Hd33a X <i>I. bostrensis</i>
Hj83	Hd12 X <i>I. bostrensis</i>
Hj84	Hd25d X <i>I. samariae</i>
Hj85	Hf21 X Royal Affair
Hj86	Hf17 X sib
Hj87	Ha11a X Hf43

- Hj88 *I. susiana* X ACW729: (collected hybrid of *I. lycotis*)
HJ88b **CHARCOAL GREY** - R. 1980
- Hj89 ACW729: (collected hybrid of *I. lycotis*) X *I. susiana*
- Hj90 Hb26 X Vulcan's Forge
- Hj91 Hd25 X Hd25b
- Hj92 Hd25 X Hd25d
- Hj93 Sinaya X Hd25e
- Hj94 Hd12d X Hd12c
- Hj95 *I. acutiloba* X JCA3163
- Hj96 *I. acutiloba* X *I. urmiensis*
- Hj97 ACW721 X Vulcan's Forge
- Hj98 Hd11a X Hd22
- Hj99 Hd26d X *I. hermona*
- CHj100 *I. kashmiriana* (Dutt) X *I. gatesii*
- CHj101 Hd10a X Indigent Arab
- ~~CHj102 Hb27 X Hh36~~
- ~~CHj103 Hd6 X Hf15~~
- ~~CHj104 Hb23a X *I. hermona*~~
- CHj105 *I. korolkowii* Brown and Green X *I. samariae* -
(Tom [Wilkes] gave me seed from pollen I sent him)
- ~~CHj106 *I. korolkowii violacea* X *I. samariae*~~
- ~~CHj107 *I. pallida* (Dubrovnic) X *I. lortetii*~~
- CHj108 Hd12c X Hd12d
- CHj109 Hb26 X Vulcan's Forge

CHj110	Hd25 X Hd25d
CHj111	(<i>I. susiana</i> x <i>I. atropurpurea</i>) X <i>I. benjaminii</i>
CHj112	<i>I. iberica</i>
CHj113	<i>I. gatesii</i>
CHj114	<i>I. basaltica</i>
CHj115	<i>I. samariae</i>
CHj116	Gantz 67-6: ((<i>I. pseudopumila</i> 143A x <i>I. attica</i>) X once)
CHj117	ACW721 X Vulcan's Forge
CHj118	Hd26d X <i>I. hermona</i>
CHj119	Hd10a X Indigent Arab
CHj120	Hd27 X Hf19
CHj121	Hd25 X Hd25b
CHj122	Hf7a X Hd12d
CHj123	Hd4 X Hd34
CHj124	Hd25 X Ha20a
CHj125	Hb11 X Hb26
CHj126	Hb9a X Hb16a
CHj127	Hb9c X <i>I. atrofusca</i>
CHj128	Hb18 X <i>I. polakii</i>
CHj129	Hd4 X Hd34
CHj130	Hd26 X Hd25
CHj131	Hf7 X Hd26
CHj132	Hb8a X Vulcan's Forge

CHj133	Ha31 X Hd25
CHj134	Hb16 X Hb13
CHj135	Sylphide X W845
CHj136	Sylphide X Ha18
CHj137	Sylphide X Hb6
CHj138	<i>I. auranitica</i> Tel Jaffna X JCA3212 (<i>I. lycotis</i>)
CHj139	Sylphide X Dardanus
CHj140	Hb18 X Ha31

1975 = Hk

Hk1	2/3	Hh46 X Wiloh Wilkes WW12
Hk2	2/3	Bright Mahogany X Wiloh Wilkes WW6
Hk3	2/3	Hf16a X Wiloh Wilkes WW7
Hk4	2/3	Hf43 X Oh That Beard
Hk5		Hg13 X Wiloh Wilkes WW18 - 2/3 X 2/4
Hk6		Wiloh Wilkes WW12 X Hh67a - 2/4 X 2/3
Hk7	2/3	Hf9c X Wiloh Wilkes WW6
Hk8	2/3	Hf9a X Wiloh Wilkes WW7
Hk8a		INDIAN WELLS - R. 1980
Hk8b		GLORIA DEE - R. 1980
Hk9	2/3	King's Fancy X Wiloh Wilkes WW6
Hk10	2/3	Hf22b X Wiloh Wilkes WW6
Hk11	2/3	Hg46 X Wiloh Wilkes WW12
Hk12	2/3	Hf16 X Wiloh Wilkes WW12
Hk12a		ANVIL SPRINGS - R. 1980
Hk13	2/3	Hb11 X Oh That Beard
Hk14	2/3	Ha12b X Oh That Beard
Hk15	2/3	Hf1 X Wiloh Wilkes WW18
Hk16		<i>I. gatesii</i> X <i>I. antilbanotica</i>
Hk17		<i>I. samariae</i> X <i>I. paradoxa</i>
Hk18		<i>I. nigricans</i> X Hf7a
Hk19		Hh40 X Hg56 – Sib to CHk52
Hk20		Hh40 X yellow <i>I. samariae</i> - (David [Shahak?] sent me pollen)

Hk21	Hh37 X Hf7
Hk22	Hh33 X Lady Sunshine
Hk23	Hf16e X Shaheen
Hk24	Royal Affair X Twice Nice - reciprocal of Hk32
Hk25	Hh50 X Hh38
Hk26	Hd37a X <i>I. nazarena</i>
Hk27	Hg56a X Hh36
Hk28	Hg56 X Hh33
Hk29	<i>I. heylandiana</i> X Hg56
Hk30	Hg56a X Hh37
Hk31	Hg56a X Hf7a
Hk32	Twice Nice X Royal Affair - reciprocal of Hk24
Hk33	Hd25c X Traffic Jammer
Hk34	Hd37a X (<i>I. mariae</i> x <i>I. haynei</i>)
Hk35	Hd25c X Hh50
Hk36	Hh1 X <i>I. antilbanotica</i>
Hk37	Hd14 X <i>I. nazarena</i>
Hk38	Royal Affair X <i>I. mariae</i>
Hk39	Hd26g X Hh1
Hk40	Royal Affair X Hi20
CHk41	Hf7a X Hf10c
CHk42	Hh37 X Hf7
CHk43	Hf16c X Shaheen

CHk44	Royal Affair X Twice Nice
CHk45	Hh50 X Hh38
CHk46	Hh40 X yellow <i>I. samariae</i>
CHk47	<i>I. samariae</i> X <i>I. paradoxa</i>
CHk48	Hf7a X Shalah
CHk49	<i>I. nigricans</i> X Hf7a
CHk50	<i>I. korolkowii</i> Brown and Green X Judean Charmer
CHk51	<i>I. korolkowii</i> Brown and Green X Ha13a
CHk52	Hh40 X Hg56 – Sib to Hk19
CHk52 [!]	Hg56 X <i>I. nigricans</i>
CHk53	Hg56 X Hh33
CHk54	Hh37 X Hf7a
CHk55	Hd25i X Hh40
CHk56	Hd25i X Hh40
CHk57	Hh50 X Hh38
CHk58	Hh40 X Hf43
CHk59	Hd37a X <i>I. nazarena</i>
CHk60	Hg56a X Hh36
CHk61	Hd25i X Hh40
CHk62	Hd37a X (<i>I. mariae</i> x <i>I. haynei</i>)
CHk63	<i>I. heylandiana</i> X Hg56
CHk64	Hg56 X <i>I. nigricans</i>
CHk65	Hg56 X Hh33

- CHk66 Hh1 **X** *I. antilibanotica*
- CHk67 Royal Affair **X** *I. hermona*
- CHk68 Royal Affair **X** *I. mariae*
- CHk69 *I. furcata*
- CHk70 Hd25c **X** Traffic Jammer
- CHk71 Hd14 **X** *I. nazarena*
- CHk72 (Hf35b **X** Hf22b)
(Not sure that Chk72 and Chk73 may be mixed up)
- CHk73 (Twice Nice **X** Royal Affair)
(Not sure that Chk72 and Chk73 may be mixed up)

1976 = HI

- HI1 Hf10c X Wiloh Wilkes WW9 - or - (Topa x Piroeschka) - mix up in tags
 - seed only - sent to Jonnye Rich
- HI2 Fairy Fantasy X Piroeschka - seed only - sent to Jonnye Rich
- HI3 Hf7c X Piroeschka - seed only - sent to Jonnye Rich
- HI4 Nomad's Child X Piroeschka - seed only - sent to Jonnye Rich
- HI5 Ha35a X *I. pumila* (lavender) - seed only - sent to Jonnye Rich
- HI6 Lady Sunshine X *I. pumila*, lavender - seed only - sent to Jonnye Rich
- HI7 Amboy Agate X *I. pumila*, lavender - seed only - sent to Jonnye Rich
- HI8 Amboy Agate X *I. pumila*, Austrian A19 - seed only - sent to Jonnye
 Rich
- HI9 Hf7f X *I. pumila*, Austrian A19 - seed only - sent to Jonnye Rich
- ~~HI10 Hf11 X Hh40~~
- HI11 2/4 Grand Vizier X Wiloh Wilkes WW11
- ~~HI12 Hh15a X Wiloh Wilkes WW21 - 2/3 X 2/4~~
- ~~HI13 Hg39a X Wiloh Wilkes WW19 - 2/3 X 2/4~~
- HI14 Hg7 X Wiloh Wilkes WW21 - 2/3 X 2/4
- HI15 Hh56 X Welcome Reward - 2/3 X 2/4
- HI16 Hg7 X Wiloh Wilkes WW7 - 2/3 X 2/4 - had almost 50 good seeds but
 killed with clorox
- HI17 Hh11c X Wiloh Wilkes WW7 - 2/3 X 2/4
- HI17a **NINE MILE** - R. 1984
- HI18 Hh15a X Wiloh Wilkes WW14 - 2/3 X 2/4
- HI19 Hj2 X Hg7 - 2/3 X 2/4
- HI20 Hg39a X Hj36a - 2/3 X 2/4

HI21	Hh56 X Wiloh Wilkes WW14 - 2/3 X 2/4
HI22	Hh16 X Wiloh Wilkes WW19 - 2/3 X 2/4
HI23	Hh15a X Grand Vizier - 2/3 X 2/4
HI24	Hi20a X Hi20b
HI25	Hh40 X Ancilla
HI25a	MOJAVE BLUE - R. 1982
HI26	Ha17a X Hi20
HI27	Hi20 X Hh1a - reciprocal cross of HI33
HI28	Hi20a X Hh40a
HI29	Hh53 X Hi20
HI30	<i>I. antilibanotica</i> X Hi20
HI31	Hf32a X <i>I. antilibanotica</i>
HI32	Hi11 X Hi20
HI33	Hh1a X Hi20b - reciprocal of HI27
HI34	1/3 Brown Prince X (<i>I. aphylla</i> T x <i>I. balkana</i>)
HI35	1/3 Bright Bonnet X (<i>I. aphylla</i> T x <i>I. balkana</i>)
HI36	1/3 Sinaya X (<i>I. aphylla</i> T x <i>I. balkana</i>)
HI37	1/3 Hf17b X (<i>I. aphylla</i> T x <i>I. balkana</i>)
HI38	Hf10b X onco
HI39	1/3 Mojave Queen X (<i>I. aphylla</i> T x <i>I. balkana</i>)
HI40	Hi16 X Hj7 = 10.10. X 10.12.12. = could be 2/3 or diploid sterile 1/2
CHI41	Hg56a X Gantz 63-32: (<i>I. attica</i> x <i>I. pumila</i>) - Wilkes Award
CHI42	Fairy Fantasy X Gantz 63-32: (<i>I. attica</i> x <i>I. pumila</i>)

CHI43 Hf32a X Gantz 63-32: (*I. attica* x *I. pumila*)

~~CHI44 Brown Prince X Gantz 63-32: (*I. attica* x *I. pumila*)~~

CHI45 Hf35 X *I. attica*

CHI46 Gantz 63-32: (*I. attica* x *I. pumila*) X Hd12c

1977 = Hm

Hm1	Traffic Jammer X Hh40b
Hm2	Hi21a X Traffic Jammer
Hm3	Hh38a X Traffic Jammer
Hm4	Hf11 X <i>I. auranitica</i> Tel Sbihi ('TS Gold')
Hm5	Hi43 X <i>I. auranitica</i> Tel Sbihi ('TS Gold')
Hm6	<i>I. auranitica</i> Tel Sbihi ('TS Gold') X <i>I. auranitica</i> Marxam ('MX Gold')
Hm7	Ha11a X Hf28b
Hm8	<i>I. hermona</i> X Hi36
Hm9	<i>I. antilibanotica</i> X Hf28b
Hm10	Little Kid X Traffic Jammer
Hm11	Sylphide X Hi36
Hm12	Ha17a X Hi36
Hm13	Sylphide X Hf28b
Hm14	Hi36 X sib
Hm15	Ha11a X Hf28b
Hm16	Ha17a X Hi36
Hm17	Sylphide X Traffic Jammer
Hm18	Hg46 X Hg46b
Hm19	1/3 Fairy Fantasy X <i>I. balkana</i>
Hm20	1/3 Hd2a X (<i>I. reichenbachii</i> x <i>I. balkana</i>)
Hm21	1/3 Iberian Gem X <i>I. balkana</i>
Hm22	1/3 Hh50 X (<i>I. reichenbachii</i> x <i>I. balkana</i>)

- Hm23 1/3 Hd25j **X** (*I. reichenbachii* x *I. balkana*)
OR
Hd25j **X** (*I. aphylla* T x *I. balkana*) - seed got mixed
- Hm24 Hg39a **X** Hj36-11 - 2/3 **X** 2/3 ?
- Hm25 Hh24-6 **X** Wiloh Wilkes WW17 - 2/3 **X** 2/4
- Hm26 Hg39a **X** Hj36-5 - 2/3 **X** 2/3 ?
- Hm27 Wiloh Wilkes WW18 **X** Hh23a - 2/4 **X** 2/3
- Hm28 Hh15a **X** Wiloh Wilkes WW21 - 2/3 **X** 2/4
- Hm29 Hh12-2 **X** Wiloh Wilkes WW21 - 2/3 **X** 2/4
- Hm30 Hh12 **X** Wiloh Wilkes WW7 - 2/3 **X** 2/4
- Hm31 Hg5-2 **X** Wiloh Wilkes WW7 - 2/3 **X** 2/4
- Hm32 Hg5-2 **X** Wiloh Wilkes WW17 - 2/3 **X** 2/4
- Hm33 2/4 Hj37-9 **X** Wiloh Wilkes WW20
- Hm34 2/4 Hj37-1 **X** Wiloh Wilkes WW7
- Hm35 Hf22a **X** SST59 - onco **X** 1/3 - could be 2/3 or diploid sterile 1/2
- Hm36 Bright Mahogany **X** SST59 - onco **X** 1/3 - could be 2/3 or diploid sterile 1/2
- Hm37 2/4 Hi4 **X** Wiloh Wilkes WW15
- Hm38 Hj11 **X** Wiloh Wilkes WW21 - 2/3 **X** 2/4
- Hm39 Hh11-3 **X** Hh11-1 - 2/3 **X** 2/3
- Hm40 1/3 Hf11 **X** Returning Glory - one plant, from pollen, could be 2/4
- Hm41 *I. samariae* **X** (*I. samariae* x *I. auranitica*) ???
- Hm42 Hg7 **X** volunteer - 2/3 **X** ?
- Hm43 2/3 Hh35 **X** Wiloh Wilkes WW7 - onco **X** 2/4 = 2/3

- Hm44 2/3 Hh35 **X** Wiloh Wilkes WW12
- Hm45 2/3 Hh48a **X** Wiloh Wilkes WW21
- Hm46 2/3 Hh48a **X** Wiloh Wilkes WW21
- Hm47 2/3 *I. samariae* **X** Wiloh Wilkes WW14
- Hm48 2/3 Hf11 **X** Wiloh Wilkes WW21
- Hm49 2/3 Hd35 **X** Wiloh Wilkes WW9
- Hm50 2/3 Hf13 **X** Wiloh Wilkes WW12
- Hm51 2/3 Hf16 **X** Wiloh Wilkes WW6
Hm51a **NEW DISCOVERY** - R. 1980
- Hm52 Hh18 **X** Wiloh Wilkes WW17 - 2/3 **X** 2/4
- Hm53 2/3 Indigent Arab **X** Wiloh Wilkes WW9
- Hm54 2/3 Mojave Queen **X** Welcome Reward
- Hm55 2/3 Bright Mahogany **X** Welcome Reward
- Hm56 2/3 Rockeye **X** Welcome Reward
- Hm57 2/3 *I. auranitica* Kafir Mayamas **X** Wiloh Wilkes WW7
- Hm58 2/3 Hd2 **X** Wiloh Wilkes WW14
- Hm59 1/3 Hf32a **X** Returning Glory
- Hm60 2/3 Hf32a **X** Wiloh Wilkes WW21
Hm60a **PASTEL LADY** - R. 1984
- Hm61 2/3 *I. auranitica* Kafir Mayamas **X** Wiloh Wilkes WW12
- Hm62 2/3 Brown Prince **X** Welcome Reward
- Hm63 2/3 *I. samariae* **X** Welcome Reward
- Hm64 2/3 Little Kid **X** Wiloh Wilkes 20
- Hm65 2/3 *I. auranitica* Tel Sbihi ('TS Gold') **X** Wiloh Wilkes WW7

Hm66 2/3 Hf40 X Wiloh Wilkes WW12

~~Hm67 1/3 *I. auranitica* Kafir Mayamas X Returning Glory~~

Hm68 2/3 Ha31b X Wiloh Wilkes WW14

Hm69 2/3 Ha11 X Wiloh Wilkes WW8

Hm70 2/3 Sylphide X Wiloh Wilkes WW7

Hm71 2/3 Sylphide X Wiloh Wilkes WW14

Hm72 2/3 Sylphide X Wiloh Wilkes WW18

Hm73 2/3 Hf5 X Wiloh Wilkes WW5

Hm74 2/3 Hf31a X Wiloh Wilkes WW14

Hm75 2/3 Bright Bonnet X Wiloh Wilkes WW14

Hm76 2/3 Hf22b X Wiloh Wilkes WW9

Hm77 2/3 *I. auranitica* Tel Jaffna X Wiloh Wilkes WW9

Hm78 2/3 Hb16a X Wiloh Wilkes WW7

Hm79 2/3 Mojave Queen X Wiloh Wilkes WW14

Hm80 2/4 Quinta X Wiloh Wilkes WW4 - counted these; all 44 - 8 sdgls

Hm81 2/3 Hf10b X Wiloh Wilkes WW14

Hm82 2/3 Hf10b X Wiloh Wilkes WW7

Hm83 2/3 Vulcan's Forge X Grand Vizier

Hm84 2/3 Hd21a X Grand Vizier

Hm85 2/3 Hf22b X Wiloh Wilkes WW9

Hm86 2/3 Hf37a X Wiloh Wilkes WW6

Hm87 2/3 Rockeye X Wiloh Wilkes WW9

Hm88 2/3 Bright Bonnet X Wiloh Wilkes WW14

- Hm89 2/3 Hf37a X Wiloh Wilkes WW14
- Hm90 2/3 Rockeye X Wiloh Wilkes WW14
- Hm91 2/3 Bright Mahogany X Wiloh Wilkes WW5
- Hm92 2/3 Hf37a X Wiloh Wilkes WW5
- Hm93 2/3 *I. auranitica* Tel Jaffna X Wiloh Wilkes WW15
- Hm94 2/3 Ha4 X Wiloh Wilkes WW9
- Hm95 2/3 Hf25 X Wiloh Wilkes WW7
- Hm96 2/3 Hf25 X Wiloh Wilkes WW19
- Hm97 2/3 *I. auranitica* Marxam X Wiloh Wilkes WW6
- Hm98 2/3 *I. auranitica* Kafir Mayamas X Wiloh Wilkes WW14
- Hm99 2/4 Hj37-2 X Wiloh Wilkes WW12
- Hm100 2/4 Hj37-2 X Wiloh Wilkes WW19
- Hm101 2/3 Hi42 X Wiloh Wilkes WW14
- Hm102 2/3 Little Kid X Wiloh Wilkes WW14
- Hm103 2/3 Hf32a X Wiloh Wilkes WW12
- Hm104 2/3 He5 X Wiloh Wilkes WW6
- Hm105 2/3 Hi37 X Wiloh Wilkes WW15
- Hm106 2/3 Hd27a X Wiloh Wilkes WW19
- Hm107 2/3 Hj42 X Grand Vizier
- Hm108 2/3 Hd2 X Hj37-10
- Hm109 2/3 Hf16b X Wiloh Wilkes WW5
- Hm110 2/3 Hd7a X Wiloh Wilkes WW19
- Hm111 2/3 Hd28a X Wiloh Wilkes WW21

- Hm112 2/3 Hf25 X Wiloh Wilkes WW8
- Hm113 2/3 Hi38a X Wiloh Wilkes WW9
- Hm114 2/3 Hi16a X Wiloh Wilkes WW12
- Hm115 2/3 Hi21 X Wiloh Wilkes WW16
- Hm116 2/3 Hi21a X Wiloh Wilkes WW9
- Hm117 2/3 Ha13a X Wiloh Wilkes WW21
- Hm118 *I. antilbanotica* X *I. hermona*
- Hm119 Hf28b X *I. hermona*
- Hm120 *I. hermona* X Hi20
- Hm121 Bright Bonnet X *I. lortetii*
- Hm122 Hj32a X Hh40a
- Hm123 *I. samariae* X Hf28b
- Hm124 Hj22 X sib
- Hm125 Hf11 X Traffic Jammer
- Hm126 *I. auranitica* Tel Sbihi ('TS Gold') X Hi21a
- Hm126a **GARNET INLAY** - R. 1980
- Hm126b **GOLD BANNER** - R. 1980
- Hm127 Hh35 X Hd25
- Hm128 Hj5a X Hh40a
- Hm129 Hi33a X Hj14a
- Hm130 Brown Prince X Ha34 - selfed, gave a black
- Hm131 *I. lortetii* X Hh64
- Hm131a **MOJAVE ROSE** - R. 1980

1978 = Hn

- Hn1 Bright Mahogany X Hk19b
- Hn2 Ha31b X *I. lortetii*
- Hn3 Hb11a X Hf28b
- Hn4 Hf28b X Hf30
- Hn5 Hk30 X Traffic Jammer
- Hn6 Hk20 X Traffic Jammer
- Hn7 Traffic Jammer X Hk19b
- Hn8 *I. paradoxa* X *I. samariae*
- Hn9 Hk19b X Hk27a
- Hn10 Hf37a X *I. antilibanotica*
- Hn11 2/4 El Kizar X Joppa Parrot
- Hn12 2/4 Kalifa Gulnare X Joppa Parrot
- Hn13 2/4 Kalifa Baltis X Jabal Kerak
- Hn14 2/4 Imam Jeban X Kalifa Gulnare
- Hn15 2/4 Imam Ahmid X Kalifa Hirfa
- Hn16 1/3 Hf32a X G. Percy Brown
- Hn17 1/3 Fairy Fantasy X (*I. reichbachii* x *I. balkana*)
- Hn18 1/3 Rockeye X G. Percy Brown
- Hn19 1/3 *I. samariae* X G. Percy Brown
- Hn20 1/3 *I. samariae* X Returning Glory
- Hn21 Hk11-2 X Silken Blend = 2/3 or 2/4
- Hn22 1/3 Brown Warrior X Returning Glory

- Hn23 Hj11a X Rare Form - 2/3 X 2/4
- Hn24 Hj11a X Grand Vizier - 2/3 X 2/4
- Hn25 Hj11a X Silken Blend - 2/3 X 2/4
- Hn26 Hk27a X Hk28
- Hn27 CHk41 X CHk65
- Hn28 CHk58 X CHk65
(could have CHk 58 X CHk65 mixed in Hn28)
- Hn29-T CHk65 X CHk72 = Tetraploid?
(Rechecked pollen on all that bloomed; counted tetraploid :
40 on 5, assume rest tetraploid)

1979 = Ho

Ho1		Tirat Tsvi X Hj32a - Clay [Osborne] sent me seed - my pollen
Ho1a		DESERT ORCHID - R. 1983
Ho1c		HIDDEN BEAUTY - R. 1983
Ho2		<i>I. lortetii</i> X Hf28b
Ho3	1/3	Dawn Delight (TB) X Bright Bonnet (2/2)
Ho4	2/4	HI11-12 X HI21-21 - 2/4 X 2/4
Ho5	2/4	HI15-20 X Rare Form
Ho6	2/4	HI11-1 X WW14
Ho6a		TECOPA - R. 1984
Ho7		Hk8a X HI15-1 - 2/3 X 2/4
Ho8		Hj51b X Arab Lights - 2/3 X 2/4
Ho9	2/4	HI11-4 X HI21-1
Ho10	2/4	HI11-6 X HI15-1
Ho11	1/3	Indigent Arab X Dawn Delight (TB)
Ho12	1/3	Hm125 X Avanti
Ho13	1/3	Brown Warrior X Sun City
Ho14	1/3	Royal Affair X White Lightning
Ho15	1/3	Hf5 X Dawn Delight (TB)
Ho16	1/3	Hf5a X Returning Glory
Ho17	1/3	Indigent Arab X Copper Urn
Ho18	1/3	Indigent Arab X Avanti
Ho19	1/3	Lady Sunshine X <i>I. pumila</i> blue - aril-pum
Ho20	1/3	Lady Sunshine X <i>I. pumila</i> white - aril-pum

Ho21	2/3	Bright Mahogany X HI14-10
Ho22	2/3	Desert Yellow X HI11-15
Ho23		Mojve Queen X unknown onco
Ho24		HI38-1 X Hm128
Ho25		Hm123 X HI32a
Ho26		Sinaya X <i>I. atropurpurea</i>
Ho27		Traffic Jammer X Hk19d
Ho28		Hh40a X Hm128
Ho29	2/2	CHk47 X Hk17 - (<i>I. samariae</i> X <i>I. paradoxa</i> crosses sibbed)
Ho30		CHk66 X self - tet? - NO
Ho31		CHk56-1 X CHk66-4 - tet? - NO
Ho32		CHj136 X CHk56-1 - tet? - NO
Ho32a		SADDLEROCK - R. 1983
Ho33		Hf16d X <i>I. haynei</i>
Ho34		Hk19d X Hm128
Ho35		Hm128 X Lady Sunshine
Ho36		CHk47 X HI32a
Ho37		Hi20c X <i>I. haynei</i>
Ho38		HI32a X Hi11a
Ho39		Hm124a X Hi21a
Ho40		<i>I. hermona</i> X Twice Nice
Ho41		Hf16d X <i>I. haynei</i> - see also Ho33 - change number

1980 = Hp

- ~~Hp1 1/3 G. Percy Brown X Brown Gold~~
~~Hp2 1/3 Hm126 X Dawn Delight (TB)~~
~~Hp3 1/3 HI31a X Etched Burgundy~~
~~Hp4 1/3 Hm123 X Hidden Magic~~
~~Hp5 1/3 Indigent Arab X Columbia Queen~~
~~Hp6 1/3 Hm130 X Hidden Magic~~
~~Hp7 1/3 Hm126 X Hidden Magic~~
~~Hp8 1/3 I. jordana X Something Else~~
~~Hp9 Hm126b X Rich R73-58 - once X 1/3~~
 Hp10 4/4 CHk52 X SN-1: (Norris C-N75J)
 Hp10b-T **SUMMER WIND** - R. 1987 - tetraploid
~~Hp11 Rich R73-97 X SN1: (Norris N75J)~~
~~Hp12 Rich R73-97 X CHk52~~
~~Hp13 3/3 (SN-1: (Norris N75J)) X Hm129~~
~~Hp14 1/3 G. Percy Brown X Desert Yellow~~
 Hp15 HI19c X Hm42 - 2/3 X 2/3
~~Hp16 1/3 HI31c X Bess Bergen~~
~~Hp17 1/3 Desert Patina X Something Else~~
~~Hp18 2/3 Hm125 X WW11~~
~~Hp19 2/3 Hm125 X WW17~~
~~Hp20 2/3 Hm126 X WW17~~
 Hp21 2/4 Hm99 X HI11

Hp22	2/4	Hm99 X HI11
Hp23	2/3	Hm126 X WW21
Hp24	2/3	Speckled Delight X WW17
Hp25	2/3	Hm125b X WW17
Hp26	2/4	Hm100 X sib
Hp27		Hh48 X self
Hp28		Tirat Tsvi X Hm122a
Hp28b		MOJAVE GEM - R. 1984
Hp29		Mojave Rose X Tirat Tsvi
Hp29a		GENTLE REPLY - R. 1984
Hp30		Hm125 X Tirat Tsvi
Hp31		Tirat Tsvi X Mojave Rose
Hp32		Hm121 X Hm121b
Hp33		Hm122a X pink <i>I. samariae</i>
Hp34		HI25a X HI25b
Hp35		HI32a X Hm120a
Hp36		Hm126b X <i>I. mariae</i>
Hp37		<i>I. gatesii</i> X <i>I. meda</i>
Hp38		Hm126 X Rockeye
Hp39		Hm131a X Hm122a
Hp40		Artemis X Luna
Hp41		Luna X Nalcada
Hp42		Chione X Luna
Hp43		Nalcada X Artemis

Hp44	Mercurius	X	Artemis
Hp45	Chione	X	Nalcada
Hp46	Chione	X	Artemis
Hp47	Artemis	X	Shaheen
Hp48	Theseus	X	Luna
Hp49	Luna	X	Shaheen
CHp50	Brown Gold	X	Hm126b
CHp51	Hm124b	X	Hm126a
CHp52	Hm126a	X	sib
CHp53	Hm129	X	sib
CHp54	Bright Mahogany	X	Hm129
CHp55	Little Kid	X	Fairy Fantasy
CHp56	HI28	X	HI27
CHp57	Valley Child	X	Traffic Jammer
CHp58	Traffic Jammer	X	Hk30
CHp59	<i>I. bostrensis</i>	X	<i>I. barnumae</i> TC
CHp60	Bright Bonnet	X	Hh40a
CHp61	Hf16b	X	Brown Prince
CHp62	<i>I. lortetii</i>	X	Hf28b
CHp63	Hf31a	X	<i>I. antilibanotica</i>
CHp64	Hd12e	X	Hh40a
CHp65	Hd19a	X	Ha34
CHp66	Hd12e	X	Hd12f

—— CHp67 —— Ha31 **X** *I. lortetii*

—— CHp68 —— Hf7b **X** Hj84

1981 = Hq

Hq1-T (Norris T-N81A)	4/4	Norris T-N79G2 X Norris C-N79R2
Hq2-T (Norris T-N81C)	4/4	Norris T-N79G1 X Norris C-N79O
Hq3-T (Norris T-N81D)	4/4	Norris C-N78Z X Norris C-N79M4
Hq4-T (Norris T-N81E)	4/4	Norris C-N79O X sib
Hq5-T (Norris T-N81F)	4/4	Persian Pansy X Norris T-N79G2
Hq6-T (Norris T-N81G)	4/4	Norris T-N78P3 X Norris C-N79M4
Hq7-T (Norris T-N81H)	4/4	Norris C-N79C1 X Norris T-N79A1
Hq8-T (Norris T-N81I)	4/4	Norris T-N79A1 X Norris C-N79O
Hq9-T (Norris T-N81L)	4/4	Norris C-N75H1 X Norris C-N79M4
Hq10-T (Norris T-N81M)	4/4	Norris C-N75H1 X Norris C-N78Z
Hq11-T (Norris T-N81N)	4/4	Norris T-N79P X Persian Pansy
Hq12-T (Norris T-N81O)	4/4	Norris C-N79C4 X Norris T-N79A33
Hq13-T	4/4	CHj105 X Hn29
Hq14-T	4/4	Hn29 X sib
Hq15	3/3	CHk65 X Hn29b
Hq16		Desert Patina X <i>I. lortetii</i> - pod treated .4%c at pollination

Hq17	1/3	Hm126a X Columbia Queen
Hq18		number skipped ?
Hq19	1/3	Hm126a X Hidden Magic
Hq20	1/3	Desert Patina X Columbia Queen
Hq21	2/3	Hj33a X HI15
Hq22	2/3	Hm126a X Hm52a
Hq23	2/3	Hm126a X Hm40a
Hq24	2/3	HI17a X Hn9b - 2/3 X onco
Hq25	2/3	Hm126b X Hm34a
Hq26	2/3	<i>I. basaltica</i> X HI15
Hq27	2/3	Hn7 X HI15
Hq28	2/3	Hn6 X Hm52a
Hq29		Hm43-1 X HI21-9 - 2/3 X 2/4
Hq30	2/3	Hm128a X Ho5
Hq31	2/3	Hm131a X Hm52a
Hq32	2/3	Hm9a X HI15
Hq33		Hm54a X HI15 - 2/3 X 2/4
Hq34	2/3	Hn1 X Hm52a
Hq35	2/4	(Cloth of Gold x <i>I. korolkowii</i>) X Wiloh Wilkes sdg.: (10 Sal W7-5)
CHq36		HI20a X Lady Sunshine All
CHq37		Hm41a X Hm126a
CHq38		Hm126a X Hm128a

CHq39	HI20b X Twice Nice
CHq40	HI20a X Hh40a
CHq41	HI20a X Hn9b
CHq42	Judean Raven X Hm130b
CHq43	HI25a X Hn9a
CHq44	Vulcan's Forge X Hm130b
CHq45	CHK47 X Hn8

1982 = Hr

Hr1	2/3	Desert Patina X Ho9b
Hr2	2/4	Ho10a X Hm52a
Hr3	2/4	Hm52a X volunteer
Hr4	2/4	Hm52a X Ho9a
Hr5	2/4	Hm52a X Ho5a
Hr6-T	4/4	CHj105 X Hn29h-T
Hr6a-T	4/4	AT THE THRESHOLD - R. 1986
Hr7-T	4/4	Norris C-N79M X Norris T-N80D
Hr8-T	4/4	Norris C-N79R1 X Norris T-N80C2
Hr9-T	4/4	Norris T-N80A6 X Norris C-N79R1
Hr10-T	4/4	Norris T-N80B4 X Norris C-N79R1
Hr11-T	4/4	Norris T-N78P3 X Norris T-N78R1
Hr12-T	4/4	Norris T-N80A5 X Norris C-N79R1
Hr13-T	4/4	Norris T-N78CF X Norris T-N80B7
Hr14-T	4/4	Norris T-N80D3 X Norris T-N79B2
Hr15-T	4/4	Norris T-N79R4 X <i>I. kasruwana</i> - see also Hr21 - different pod? diploid?
Hr16-T	4/4	Norris T-N79G1 X Norris C-N79R1
Hr17-T	4/4	Norris T-N79A6 X Norris T-N78R1
Hr18-T	4/4	Norris T-N78BK X Norris C-N79R1
Hr19-T	4/4	<i>I. stolonifera</i> X Norris C-N79R1
Hr20-T	4/4	<i>I. stolonifera</i> X Norris T-N80B7
Hr21		Norris T-N79R4 X <i>I. kasruwana</i> - not a tetraploid - diploid from pollen

- Hr22-T 4/4 *I. paradoxa* tetraploid
- Hr23-T 4/4 Norris T-N80D X Norris C-N79M
- Hr24-T 4/4 Norris T-N80A2 X Norris T-N80C5
- Hr25-T 4/4 *I. stolonifera* X Norris T-N79K
- Hr26-T 4/4 Norris T-N80B3 X Norris T-N80A5
- Hr27-T Norris T-N80B1 X *I. kasruwana*
- Hr28-T 4/4 Norris T-N80D1 X Norris T-N79B2
- Hr29-T 4/4 Norris T-N79A1 X Norris C-N79M
- Hr30-T 4/4 Norris T-N79V2 X Norris T-N80B4
- Hr31-T 4/4 Norris T-N79G2 X Norris C-N79R1
- Hr32-T 4/4 Norris T-N79G2 X Norris T-N79G6
- Hr33-T 4/4 *I. stolonifera* X Norris T-N79G2
- Hr34-T 4/4 Norris T-N79B2 X Norris C-N79M
- Hr35-T 4/4 Norris T-N79B2 X Norris T-N78R1
- Hr36-T 4/4 Dardanus X Norris T-N79V
- Hr37-T 4/4 Dardanus X Norris T-N80C2
- Hr37a-T 4/4 **FLOATING RESERVE - Norris R. 1987**
- Hr38-T 4/4 Dardanus X Norris T-N79G2
- Hr39-T 4/4 Dardanus X Norris T-N79G1
- Hr40 Chione X Luna
- Hr41-T 4/4 Artemis X Luna
- ~~Hr42 Mercurius X Theseus~~
- Hr43 Luna X Nalcada

Hr44	Shalah X self
Hr45	Ho20a X HI25a
Hr46	Hm128a X Hm10a
Hr47	<i>I. hermona</i> X Hn9b
Hr48	Hm130 X HI20b
Hr49	<i>I. nigricans</i> X Vulcan's Forge
Hr50	Hn9b X Lady Sunshine
Hr51	<i>I. nigricans</i> X Hj20a
Hr52	HI25a X yellow <i>I. samariae</i>
Hr53	Rockeye X Hm128a
Hr54	CHk47 X <i>I. hermona</i>
Hr55	Hm126a X Hm126b
Hr56	Desert Patina X Hm10a
Hr57	Hm130b X self - a black

1983 = Hs

- Hs1 2/4 Hm52a X Ho56
- Hs2 Ho1c X Hl33a
- Hs3 Ho1b X Hn5c
- Hs4 Brown Warrior X *I. basaltica* & Nalisha X Light Blue
- Hs5 Desert Patina X Little Kid
- Hs6 Desert Patina X Rockeye
- Hs7 Rockeye X Ho28a
- Hs8 Hp31 X Hp28a
OR
~~Hj10 X Hq10-3-T~~
- Hs9-T 4/4 Hp10a-T X Hq10-3-T
OR
~~Hp31a X Hp28a~~
- Hs10-T 4/4 Norris T-N79G3 X Hp10a-T
- ~~Hs11-T 4/4 CHj105 X Hp10a-T~~
- Hs12-T 4/4 Hn29h-T X Summer Wind
- Hs13-T 4/4 CHq45-1 (no pollen) X Norris T-N79G3
- Hs14-T 4/4 Hq10-T X Hp10a-T
- Hs15-T 4/4 Hp10a-T X Hq14-7-T
- Hs16-T 4/4 Hq6-1-T X Hn29c-T
- Hs17-T 4/4 Hn29-T X Hq3-T
- ~~Hs18 Royal Affair X self~~
- Hs19 Hm10a X self
- Hs20 Desert Patina X self

Hs21	Rockeye X self
Hs22	HI31c X self
Hs23	Mojave Blue X self
Hs24	Unknown X self
Hs25	Ho1b X self
Hs26	Fairy Fantasy X self
Hs27	<i>I. haynei</i> X self
Hs28	<i>I. lortetii</i> X self
Hs29	<i>I. hermona</i> X self
Hs30	<i>I. gatesii</i> X self
Hs31	<i>I. jordana</i> X self
Hs32	Selfed <i>I. sofarana</i> X yellow <i>I. sofarana</i> - sibs
Hs33	<i>I. sofarana</i> X self - from same pod that produced the yellow <i>sofarana</i>
CHs34	Hn5a X Hn9b
CHs35	Hn9b X Hn5
CHs36	Hn9a X Hm120b
CHs37 4/4	HI33a X self
CHs38 4/4	?
Hs39	<i>I. mariae</i> X <i>I. samariae</i>
Hs40	(<i>I. mariae</i> X <i>samariae</i>) X <i>I. mariae</i>

1984 = Ht

- Ht1-T 4/4 Hp10c-T X CHq40a
- Ht2-T 4/4 Hq8-T X CHq39a
- ~~Ht3-T 4/4 Hq1-T X self~~
- Ht4-T 4/4 Hr23-T X CHq39a - reciprocal of Ht18-T
- Ht5-T 4/4 Hq8-T X self
- Ht6-T 4/4 CHq40a X self
- Ht7-T 4/4 Hr29-T X self
- ~~Ht8-T 4/4 CHq42a X CHq39a~~
- ~~Ht9-T 4/4 CHq39a X self~~
- Ht10-T 4/4 Hq1-T X CHq39a
- Ht11-T 4/4 Hq5-T X CHq39a
- Ht12-T 4/4 Hr34-T X CHq39a
- ~~Ht13-T 4/4 Hr17-T X Hq14a-T~~
- ~~Ht14-T 4/4 CHq39a X Hq1-T~~
- Ht15-T 4/4 Hq8-T X CHq40a
- Ht16-T 4/4 Hr29-T X CHq39a - could be either - recheck next year -
Reciprocal of Ht21-T
- Ht17-T 4/4 Hq8-T X Hq5-T
Reciprocal of Ht29-T
- Ht18-T 4/4 CHq39a X Hr23-T
Reciprocal of Ht4-T
- ~~Ht19-T 4/4 Hq8-T X CHq42a~~
- Ht20-T 4/4 Hr17-T X Hp10c-T - some no pollen

Ht21-T 4/4 CHq39a X Hr29-T
Reciprocal of Ht16-T

Ht22-T 4/4 Hq10-T X Hp10c-T

Ht23-T 4/4 Hr24-T X Hq8-T

Ht24-T 4/4 Hr23-T X Hq5-T
Reciprocal of Ht27-T

Ht25-T 4/4 Hr31-T X Hq10-T

Ht26-T 4/4 Hq1-T X Hp10c-T

Ht27-T 4/4 Hq5-T X Hr23-T
Reciprocal of Ht24-T

Ht28-T 4/4 Hq11-T X Hr23-T

Ht29-T 4/4 Hq5-T X Hq8-T
Reciprocal of Ht17-T

Ht30-T 4/4 Hq1-T X Hq10-T

Ht31-T 4/4 Hr29-T X Hq11-T

Ht32-T 4/4 Hq8-T X Hr23-T

Ht33-T 4/4 Hq11-T X Hq8-T
Reciprocal of Ht35-T

Ht34-T 4/4 Hq1-T X Hq8-T

Ht35-T 4/4 Hq8-T X Hq11-T
Reciprocal of Ht33-T

Ht36-T 4/4 Hq11-T X Hq2-T

CHt37 Charcoal Grey X Hr50

CHt38 Hr55a X Bright Mahogany

CHt39 Hr50 X self

CHt40 Hr55 X self

CHt41	Hr57 X <i>I. atropurpurea</i>
Ht42	Brown Warrior X Hr55a
Ht43	Charcoal Grey X Hn9a
Ht44	<i>I. samariae</i> X <i>I. antilbanotica</i>
Ht45	<i>I. lycotis</i> hybrid X <i>I. antilbanotica</i>

1985 = Hu

Hu1	2/4	Hr36-T X	Battle Shout
Hu2-T	4/4	Hn29-T X	self
Hu3-T	4/4	CHs34-10-T X	Hs17-T
Hu4-T	4/4	CHs34-10-T X	self
Hu5-T	4/4	Hr6-T X	self
Hu6-T	4/4	Hr37-T X	Hn29-T
Hu7-T	4/4	Hs14-T X	self
Hu8-T	4/4	Hr7a-T X X	CHs34a-T
Hu9-T	4/4	Hr8-T X	Hn29-T
Hu10-T	4/4	Hr17-T X	Hn29-T
Hu11-T	4/4	Hr31-T X	Hn29-T
Hu12-T	4/4	Hr7a-T X	Hn29-T
Hu13-T	4/4	Hr6-T X	Hs17-T
Hu14-T	4/4	Hn29-T X	Hs14-T
Hu15-T	4/4	Hr34-T X	Hn29-T
Hu16-T	4/4	Hs17-T X	CHs34-5mx
Hu17-T	4/4	Hr34-T X	Hr7-T
Hu18-T	4/4	Hr24a-T X	Hn29-T
Hu19-T	4/4	Hr6-T X	sib
CHu20		<i>I. camillae</i> X	<i>I. kasruwana</i>
CHu21		Charcoal Grey X	<i>I. susiana</i>
CHu22		Hr53a X	<i>I. susiana</i>

CHu23	Bright mahogany X <i>I. susiana</i>
CHu24	Hr57c X Hr50a
CHu25	not listed
CHu26	Hr54 X <i>I. kasruwana</i>
CHu27	Big Kid X Hr45b
CHu28	<i>I. susiana</i> X Hr50a
CHu29	Big Kid X Mojave Blue
CHu30	Mojave Blue X self
CHu31	Hs5 X <i>I. auranitica</i> Tel Sbihi ('TS Gold')
CHu32	Hr53b X <i>I. susiana</i>
CHu33	Hr56a X <i>I. auranitica</i> Tel Sbihi ('TS Gold')
CHu34	Big Kid X <i>I. susiana</i>
CHu35	Mojave Blue X Hr45b
CHu36	Hr57c X Hr49
CHu37	Rockeye X <i>I. susiana</i>
CHu38	Hr53b X Hr46
CHu39	Hr51 X sib
CHu40	Hr53a X sib
CHu41	Big Kid X Hr56
CHu42	Hr55b X self
CHu43	Hr56 X Hr52a

1986 = Hv

Hv1	Charcoal Grey X <i>I. antilibanotica</i>
Hv2	Sylphide X Hs8b
Hv3	Hs8b X Hs3a
Hv4	Hs7 X <i>I. antilibanotica</i>
Hv5	Hm126a X Hm126b
Hv6	Sinaya X Hr51
Hv7	Hr45 X Mojave Blue
Hv8	Charcoal Grey X Hr51
Hv9-T	4/4 Ht1-T X Ht4-T
Hv10-T	4/4 Hs17a-T X Hs14a-T
Hv11-T	4/4 Ht20-T X Summer Wind
Hv12-T	4/4 Hs9a-T X CHs37a-T
Hv13-T	4/4 CHs38-T X Hs13a-T
Hv14-T	4/4 Hs17-T X CHs37-T
Hv15-T	4/4 CHs34a-T X Hs12a-T
Hv16-T	4/4 Hs14a-T X Hs12a-T
Hv17-T	4/4 Hs9-T X Hr27a-T
Hv18-T	4/4 Hs13a-T X Summer Wind
Hv19-T	4/4 Hs17-T X Summer Wind
Hv20-T	4/4 Summer Wind X Ht1-T
Hv21-T	4/4 Hs13a-T X Hs14a-T
Hv22-T	4/4 Hs13a-T X Ht1-T

Hv23-T 4/4 Hs17-T X Ht4-T
 Hv24 Charcoal Grey X *I. hermona*
 Hv25 Hs20 X Hs56
 Hv26 Hr51 X *I. nigricans*
 Hv27 Desert Patina X *I. susiana*
 Hv28 Hr53a X Big Kid
 Hv29 Hr57 X *I. susiana*
 Hv30 Hr53 X Big Kid
 Hv31 Ord Mountain X *I. atropurpurea*
 Hv32 Desert Patina X Desert Yellow
 Hv33 Desert Patina X Rockeye
 Hv34 CHt38a X Rockeye
 Hv35 Hm126a X Hm126b
 Hv36-T 4/4 Ht28-T X Hs9-T
 Hv37-T 4/4 Ht28-T X Ht20-T
 Hv38-T 4/4 Ht21-T X Ht1-T
 Hv39-T 4/4 Ht20-T X Ht1-T
 Hv40-T 4/4 Ht4-T X Hr23a-T
 Hv41-T 4/4 Hs17-T X Ht16-T
 Hv42-T 4/4 Ht27-T X Hs17-T
 Hv43-T 4/4 Ht32-T X Ht4-T

1987 = Hw

- Hw1 Ht43 X sib
- Hw2 (*I. susiana* X unknown) X CHs34
- Hw3 Ht44a X self
- Hw4 Ht43 X *I. samariae*
- Hw5 3/4 Nine Mile X Ht1-T
- Hw6 2/4 Ht21a-T X Tulare
- Hw7 2/4 Hu1 X Hs1
- Hw8 2/4 Norris T-N84BW X English Cottage
Seed from Sam Norris
- Hw9 2/4 Norris T-N84CC X English Cottage
Seed from Sam Norris
- Hw10-T 4/4 Ht1-T X Hv14-T
- Hw11-T 4/4 Ht1-T X Hu8-T
- Hw12-T 4/4 Ht4-T X Hu14-T
- Hw13-T 4/4 Ht20-T X Ht22-T
- Hw14-T 4/4 Ht1-T X Ht22-T
- Hw15-T 4/4 Ht1-T X Hp10d-T
- Hw16-T 4/4 Ht22-T X Ht20-T
- Hw17-t 4/4 Ht15-T X Ht22-T
- Hw18-T 4/4 At The Threshold X Ht1-T
- Hw19-T 4/4 Hr41-T X CHt41a-T
- Hw20-T 4/4 Ht25-T X Ht1-T
- Hw21-T 4/4 At The Threshold X Ht4-T

Hw22-T 4/4 Ht20-T X CHs34a-T
 Hw23-T 4/4 Ht10a-T X Ht27-T
 Hw24-T 4/4 Ht27-T X Ht22-T
 Hw25-T 4/4 Ht24-T X Ht21a-T
 Hw26-T 4/4 Ht31-T X Ht1-T
 Hw27-T 4/4 Ht29a-T X Ht17-T
 Hw28-T 4/4 Ht20-T X self
 Hw29-T 4/4 Hu14-T X Ht21-T
 Hw30-T 4/4 At The Threshold X Ht22-T
 Hw31-T 4/4 At The Threshold X Ht21-T
 Hw32-T 4/4 At The Threshold X Ht20-T
 Hw33 Hr53a X Hr56
 Hw34 Hr48 X Hr57
 Hw35-T 4/4 Ht21-T X Hu14-T
 Hw36-T 4/4 Ht4-T X Ht20-T
 Hw37-T 4/4 Ht20-T X Ht17-T
 Hw38-T 4/4 Ht22-T X Ht17-T
 Hw39-T 4/4 Ht21-T X Ht36-T
 Hw40-T 4/4 Ht32-T X Ht25-T

1988 = Hx

Hx1 3/4 Ht27-T X lbmac
 Hx2 2/2 CHt41 X Ord Mountain
 Hx3 3/4 Ht28-T X lbmac
 Hx4-Tm 4/4 Ht32-T X CHt41mxpld
 Hx5-T 4/4 Ht28-T X Ht32a-T
 Hx6-T 4/4 Hu14-T X Hu3-T
 Hx7-T 4/4 Ht28-T X Ht32-T
 Hx8-T 4/4 At The Threshold X Hu3-T
 Hx9-T 4/4 At The Threshold X Ht2d-T
 Hx10-T 4/4 At The Threshold X Hu14-T
 Hx11-Tm 4/4 Ht28-T X CHt41mxpld
 Hx12-T 4/4 Ht28-T X Ht35-T
 Hx13-T 4/4 Ht30-T X At The Threshold
 Hx14-T 4/4 Ht32-T X Ht2-T
 Hx15-T 4/4 Ht23-T X Ht1-T
 Hx16-T 4/4 Ht28-T X Hu14-T
 Hx17-T 4/4 Hu14-T X Ht4-T
 Hx18-T 4/4 Ht28-T X Ht6-T
 Hx19-T 4/4 Ht32-T X Ht4-T
 Hx20-T 4/4 Ht30-T X Ht27-T

1989 = H89

- H89-1-T 4/4 Ht24-T X At The Threshold
- H89-2-T 4/4 Ht27-T X At The Threshold
- H89-3-T 4/4 Hw38-T X Ht2d-T
- H89-4-T 4/4 Hw38-T X Ht23-T
- H89-5-T 4/4 Hw42a-T X sib
- H89-6-T 4/4 Hw15a-T X Ht1b-T
- H89-7-T 4/4 Hw24-T X Ht1b-T
- H89-8-T 4/4 Ht2d-T X Ht1b-T
- H89-9-T 4/4 Ht30a-T X Hu3a-T
- H89-10-T 4/4 Hv42-T X Hw32-T
- H89-11-T 2/4 Norris AB-N89S: (Norris T-N86T X Tulare)
Norris seed
- H89-12-T 2/4 Norris AB-N89D: (Norris T-N85A X Earl of Essex)
Norris seed
- H89-13-T 2/4 Norris AB-N89H: (Norris T-N87M X English Cottage)
Norris seed
- H89-14-T 2/4 Norris AB-N89I: (Norris T-N87S X English Cottage)
Norris seed
- H89-15-T 2/4 Norris AB-N89L: (Norris T-N87Q X G. Percy Brown)
Norris seed
- H89-16-T 2/4 Norris AB-N89O: (Norris T-N87S X Marmalade Skies)
Norris seed
- H89-17-T 2/4 Norris AB-N89K: (Norris T-N87O X G. Percy Brown)
Norris seed
- H89-18-T 2/4 Norris AB-N89A: (Norris T-N84BY X Earl of Essex)
Norris seed

- H89-19-T 2/4 Norris AB-N89R: (Norris T-N87M X Ribbon Round)
Norris seed
- H89-20-T 2/4 Norris AB-N89J: (Hn29B X English Cottage)
Norris seed
- H89-21-T 2/4 Norris AB-N89E: (Norris T-N83E X English Cottage)
Norris seed
- H89-22-T 2/4 Norris AB-N89C: (Norris T-N87N X Earl of Essex)
Norris seed
- H89-23-T 2/4 Norris AB-N89N: (Norris T-N87M X Marmalade Skies)
Norris seed
- H89-24-T 2/4 Norris AB-N89M: (Norris T-N84CB X I Do)
Norris seed
- H89-25-T 2/4 Norris AB-N89V: (Norris AB-N87C X Norris AB-N79AA)
Norris seed
- H89-26-T 2/4 Norris AB-N89U: (Norris AB-N87C X IbMac)
Norris seed
- H89-27-T 2/4 Norris AB-N89X: (Norris AB-N87H X Norris AB-N79AA)
Norris seed
- H89-28-T 2/4 Norris AB-N89W: (Norris AB-N87F X Norris AB-N79AA)
Norris seed
- H89-29-T 2/4 Norris AB-N89T: (Norris AB-N87B X IbMac)
Norris seed
- H89-30-T 2/4 Norris AB-N89B: (Norris T-N85A X Earl of Essex)
Norris seed
- H89-31-T 2/4 Norris AB-N89P: (Norris T-N87S X Marmalade Skies)
Norris seed
- H89-32-T 2/4 Norris AB-N89G: (Norris T-N84BY X English Cottage)
Norris seed
- H89-33-T 2/4 Norris AB-N89Q: (Norris T-N86U X Ribbon Round)
Norris seed

[unnumb.] 2/4 Norris AB-N89F: (Norris T-N84G X English Cottage)
Norris seed

Holden Seeds given to Francesca Thoolen July 1989

H89-34-T	Ht27-T X Hw32-T
H89-35-T	Ht27-T X Hw37-T
H89-36-T	Hv42-T X Ht30-T
H89-37-T	Hv42-T X Hw24-T
H89-38-T	Hv42a-T X Hw29-T
H89-39-T	Hv42a-T X Hw31-T
H89-40-T	Hv42a-T X Hw31-T
H89-41-T	Hv42a-T X Hx6-T
H89-42-T	Hv42-T X Hx12-T
H89-43-T	Hw24-T X Hw28-T
H89-44-T	Hw28-T X Hv42-T
H89-45-T	Hw28-T X Hv42-T
H89-46-T	Hw31-T X Hx6-T
H89-47-T	Hw32-T X Ht27-T
H89-48-T	Hw37-T X Hw32-T

Holden Registrations in Alphabetical Order

- 2/3 ABOU BEN ADHEM - Ha8a - R. 1967
- 2/3 AMBOY AGATE - Hd31a - R. 1975
- 2/3 ANVIL SPRINGS - Hk12a - R. 1980
- 2/2 ARABIAN KNIGHT- Ha5a - R. 1967
- 4/4 AT THE THRESHOLD - Hr6a-T - R. 1986
- 2/2 BIG KID - Hf25a - R. 1976
- 2/2 BRIGHT BONNET - Hf43d - R. 1975
- 2/2 BRIGHT MAHOGANY - Hf35c - R. 1975
- 2/2 BROWN GOLD - Hf17c - R. 1975
- 2/2 BROWN PRINCE - Ha6b - R. 1973
- 2/2 BROWN WARRIOR- Hf9b - R. 1975
- 2/2 CHARCOAL GREY - Hj88a - R. 1980
- 2/2 DESERT BUTTE - Hi39c - R. 1981
- 2/3 DESERT BUTTERCUP - Hh14a - R. 1978
- 2/2 DESERT GEM - Ha4a - R. 1967
- 2/2 DESERT ORCHID - Ho1a - R. 1983
- 2/2 DESERT YELLOW - Hd6b - R. 1975
- 2/2 DESERT PATINA -Hh46a - R. 1979
- 2/2 DUSKY NOMAD - selected clone of *I. lycotis* (JCA 3212) - R. 1973
- 2/2 FAIRY FANTASY - Hd6c - R. 1976
- 4/4 FLOATING RESERVE - Hr37a-T - R. 1987 (S. Norris by J. Holden)
- 2/2 GARNET INLAY - Hm126a - R. 1980

2/2 GENTLE REPLY - Hp29a - R. 1984
 2/3 GLORIA DEE - Hk8b - R. 1980
 2/2 GOLD BANNER - Hm126b - R. 1980
 2/2 GRANITE WELLS - Hl7a - R. 1978
 2/2 HIDDEN BEAUTY- Ho1c - R. 1983
 2/2 IBERIAN GEM - Ha22a - R. 1967
 2/3 IBERIAN QUEEN - Hj17a - R. 1979
 2/3 INDIAN WELLS - Hk8a - R. 1980
 2/2 INDIGENT ARAB - Ha32a - R. 1973
 2/3 IZONYA - Hh27a - R. 1978
 2/3 KASBAH QUEEN - Hj11b - R. 1978
 2/2 KING'S FANCY - Hb11a - R. 1977
 2/2 LADY SUNSHINE - Hd12e - R. 1976
 2/3? LEBANESE LADY - Hj51b - R. 1978
 2/2 LITTLE KID - Ha20b - R. 1975
 2/2 LITANI - - R. 1984
 2/2 MOJAVE BLUE - Hl24a - R. 1982
 2/2 MOJAVE GEM - Hp28b - R. 1984
 2/3 MOJAVE PEARL - Hh57a - R. 1978
 2/2 MOJAVE QUEEN - Hf24a - R. 1975
 2/2 MOJAVE ROSE - Hm131a - R. 1980
 2/2 NALCADA - Hh53a - R. 1978
 2/3 NEW DISCOVERY - Hm51a - R. 1980

2/3 NINE MILE - Hl17a - R. 1984
2/2 NOMAD'S CHILD - Hd5c - R. 1975
2/2 ORD MOUNTAIN - Hj20a - R. 1982
2/3 PASTEL LADY - Hm60a - R. 1984
2/2 ROCKEYE - Hf17d - R. 1976
2/2 ROYAL AFFAIR - Ha19a - R. 1973
2/2 SADDLEROCK - Ho32a - R. 1983
2/2 SHAHEEN - Hb23b - R. 1974
2/2 SHALAH - Hb23a - R. 1974
2/2 SINAYA - Hd4c - R. 1973
2/2 SPECKLED DELIGHT - Hd5b - R. 1975
2/2 SPICED COFFEE - Ha6a - R. 1967
4/4 SUMMER WIND - Hp10b-T - R. 1987
2/4 TECOPA - Ho6a - R. 1984
2/2 TRAFFIC JAMMER - Hh33a - R. 1975
2/2 TWICE NICE - Ha23a - R. 1974
2/2 VALLEY CHILD - Hf10b - R. 1976
2/2 VULCAN'S FORGE - Hd4b - R. 1973

Holden's Registrations in Seedling No. Order

2/2	Ha4a	DESERT GEM - R. 1967
2/2	Ha5a	ARABIAN KNIGHT - R. 1967
2/2	Ha6a	SPICED COFFEE - R. 1967
2/2	Ha6b	BROWN PRINCE - R. 1973
2/3	Ha8a	ABOU BEN ADHEM - R. 1967
2/2	Ha19a	ROYAL AFFAIR - R. 1973
2/2	Ha20b	LITTLE KID - R. 1975
2/2	Ha22a	IBERIAN GEM - R. 1967
2/2	Ha23a	TWICE NICE - R. 1974
2/2	Ha32a	INDIGENT ARAB - R. 1973
2/2	Hb11a	KING'S FANCY - R. 1977
2/2	Hb23a	SHALAH - R. 1974
2/2	Hb23b	SHAHEEN - R. 1974
2/2	Hd4b	VULCAN'S FORGE - R. 1973
2/2	Hd4c	SINAYA - R. 1973
2/2	Hd5b	SPECKLED DELIGHT - R. 1975
2/2	Hd5c	NOMAD'S CHILD - R. 1975
2/2	Hd6b	DESERT YELLOW - R. 1975
2/2	Hd6c	FAIRY FANTASY - R. 1976
2/2	Hd12e	LADY SUNSHINE - R. 1976
2/2	Hd31a	AMBOY AGATE - R. 1975
2/2	He7a	GRANITE WELLS - R. 1978

2/2	Hf9b	BROWN WARRIOR - R. 1975
2/2	Hf10b	VALLEY CHILD - R. 1976
2/2	Hf17c	BROWN GOLD - R. 1975
2/2	Hf17d	ROCKEYE - R. 1976
2/2	Hf24a	MOJAVE QUEEN - R. 1975
2/2	Hf25a	BIG KID - R. 1976
2/2	Hf35c	BRIGHT MAHOGANY - R. 1975
2/2	Hf43d	BRIGHT BONNET - R. 1975
2/3	Hh14a	DESERT BUTTERCUP - R. 1978
2/3	Hh27a	IZONYA - R. 1978
2/2	Hh33a	TRAFFIC JAMMER - R. 1975
2/2	Hh46a	DESERT PATINA - R. 1979
2/2	Hh53a	NALCADA - R. 1978
2/3	Hh57a	MOJAVE PEARL - R. 1978
2/2	Hi39c	DESERT BUTTE - R. 1981
2/3	Hj11b	KASBAH QUEEN - R. 1978
2/3	Hj17a	IBERIAN QUEEN - R. 1979
2/2	Hj20a	ORD MOUNTAIN - R. 1982
2/3?	Hj51b	LEBANESE LADY - R. 1978
2/2	Hj88a	CHARCOAL GREY - R. 1980
2/3	Hk8a	INDIAN WELLS - R. 1980
2/3	Hk8b	GLORIA DEE - R. 1980
2/3	Hk12a	ANVIL SPRINGS - R. 1980

2/3	HI17a	NINE MILE - R. 1984
2/2	HI24a	MOJAVE BLUE - R. 1982
2/3	Hm51a	NEW DISCOVERY - R. 1980
2/3	Hm60a	PASTEL LADY - R. 1984
2/2	Hm126a	GARNET INLAY - R. 1980
2/2	Hm126b	GOLD BANNER - R. 1980
2/2	Hm131a	MOJAVE ROSE - R. 1980
2/2	Ho1a	DESERT ORCHID - R. 1983
2/2	Ho1c	HIDDEN BEAUTY - R. 1983
2/4	Ho6a	TECOPA - R. 1984
2/2	Ho32a	SADDLEROCK - R. 1983
4/4	Hp10b-T	SUMMER WIND - R. 1987
2/2	Hp28b	MOJAVE GEM - R. 1984
2/2	Hp29a	GENTLE REPLY - R. 1984
4/4	Hr6a-T	AT THE THRESHOLD - R. 1986
4/4	Hr37a-T	FLOATING RESERVE - R. 1987 (S. Norris by J. Holden)
2/2	Unn.	DUSKY NOMAD - unnumbered - R. 1973
2/2	Unn.	LITANI - unnumbered - R. 1984

Holden Registrations by Date Order

2/3 R. 1967 - ABOU BEN ADHEM - Ha8a

2/2 R. 1967 - ARABIAN KNIGHT- Ha5a

2/2 R. 1967 - DESERT GEM - Ha4a

2/2 R. 1967 - IBERIAN GEM - Ha22a

2/2 R. 1967 - SPICED COFFEE - Ha6a

2/2 R. 1973 - BROWN PRINCE - Ha6b

2/2 R. 1973 - DUSKY NOMAD - unnumbered?

2/2 R. 1973 - INDIGENT ARAB - Ha32a

2/2 R. 1973 - ROYAL AFFAIR - Ha19a

2/2 R. 1973 - SINAYA - Hd4c

2/2 R. 1973 - VULCAN'S FORGE - Hd4b

2/2 R. 1974 - SHAHEEN - Hb23b

2/2 R. 1974 - SHALAH - Hb23a

2/2 R. 1974 - TWICE NICE - Ha23a

2/2 R. 1975 - AMBOY AGATE - Hd31a

2/2 R. 1975 - BRIGHT BONNET - Hf43d

2/2 R. 1975 - BRIGHT MAHOGANY - Hf35c

2/2 R. 1975 - BROWN GOLD - Hf17c

2/2 R. 1975 - BROWN WARRIOR- Hf9b

2/2 R. 1975 - DESERT YELLOW - Hd6b

2/2 R. 1975 - LITTLE KID - Ha20b

2/2 R. 1975 - MOJAVE QUEEN - Hf24a

2/2 R. 1975 - NOMAD'S CHILD - Hd5c
 2/2 R. 1975 - SPECKLED DELIGHT - Hd5b
 2/2 R. 1975 - TRAFFIC JAMMER - Hh33a
 2/2 R. 1976 - BIG KID - Hf25a
 2/2 R. 1976 - FAIRY FANTASY - Hd6c
 2/2 R. 1976 - LADY SUNSHINE - Hd12e
 2/2 R. 1976 - ROCKEYE - Hf17d
 2/2 R. 1976 - VALLEY CHILD - Hf10b
 2/2 R. 1977 - KING'S FANCY - Hb11a - R. 1977
 2/3 R. 1978 - DESERT BUTTERCUP - Hh14a
 2/2 R. 1978 - GRANITE WELLS - He7a
 2/3 R. 1978 - IZONYA - Hh27a
 2/3 R. 1978 - KASBAH QUEEN - Hj11b
 2/3? R. 1978 - LEBANESE LADY - Hj51b
 2/3 R. 1978 - MOJAVE PEARL - Hh57a
 2/2 R. 1978 - NALCADA - Hh53a
 2/2 R. 1979 - DESERT PATINA -Hh46a
 2/3 R. 1979 - IBERIAN QUEEN - Hj17a
 2/3 R. 1980 - ANVIL SPRINGS - Hk12a
 2/2 R. 1980 - CHARCOAL GREY - Hj88a
 2/2 R. 1980 - GARNET INLAY - Hm126a
 2/3 R. 1980 - GLORIA DEE - Hk8b
 2/2 R. 1980 - GOLD BANNER - Hm126b

- 2/3 R. 1980 - INDIAN WELLS - Hk8a
- 2/2 R. 1980 - MOJAVE ROSE - Hm131a
- 2/3 R. 1980 - NEW DISCOVERY - Hm51a
- 2/2 R. 1981 - DESERT BUTTE - Hi39c
- 2/2 R. 1982 - MOJAVE BLUE - HI24a
- 2/2 R. 1982 - ORD MOUNTAIN - Hj20a
- 2/2 R. 1983 - DESERT ORCHID - Ho1a
- 2/2 R. 1983 - HIDDEN BEAUTY- Ho1c
- 2/2 R. 1983 - SADDLEROCK - Ho32a
- 2/2 R. 1984 - GENTLE REPLY - Hp29a
- 2/2 R. 1984 - LITANI - unnumbered?
- 2/2 R. 1984 - MOJAVE GEM - Hp28b
- 2/3 R. 1984 - NINE MILE - HI17a
- 2/3 R. 1984 - PASTEL LADY - Hm60a
- 2/4 R. 1984 - TECOPA - Ho6a
- 4/4 R. 1986 - AT THE THRESHOLD - Hr6a-T
- 4/4 R. 1987 - FLOATING RESERVE - Hr37a-T (S. Norris by J. Holden)
- 4/4 R. 1987 - SUMMER WIND - Hp10b-T

Holden Registrations in Phenotype Order

- 2/2 ARABIAN KNIGHT- Ha5a - R. 1967
- 2/2 DESERT GEM - Ha4a - R. 1967
- 2/2 IBERIAN GEM - Ha22a - R. 1967
- 2/2 SPICED COFFEE - Ha6a - R. 1967
- 2/2 BROWN PRINCE - Ha6b - R. 1973
- 2/2 DUSKY NOMAD - unnumbered - R. 1973
- 2/2 INDIGENT ARAB - Ha32a - R. 1973
- 2/2 ROYAL AFFAIR - Ha19a - R. 1973
- 2/2 SINAYA - Hd4c - R. 1973
- 2/2 VULCAN'S FORGE - Hd4b - R. 1973
- 2/2 SHAHEEN - Hb23b - R. 1974
- 2/2 SHALAH - Hb23a - R. 1974
- 2/2 TWICE NICE - Ha23a - R. 1974
- 2/2 AMBOY AGATE - Hd31a - R. 1975
- 2/2 BRIGHT BONNET - Hf43d - R. 1975
- 2/2 BRIGHT MAHOGANY - Hf35c - R. 1975
- 2/2 BROWN GOLD - Hf17c - R. 1975
- 2/2 BROWN WARRIOR- Hf9b - R. 1975
- 2/2 DESERT YELLOW - Hd6b - R. 1975
- 2/2 LITTLE KID - Ha20b - R. 1975
- 2/2 MOJAVE QUEEN - Hf24a - R. 1975
- 2/2 NOMAD'S CHILD - Hd5c - R. 1975

- 2/2 SPECKLED DELIGHT - Hd5b - R. 1975
- 2/2 TRAFFIC JAMMER - Hh33a - R. 1975
- 2/2 BIG KID - Hf25a - R. 1976
- 2/2 FAIRY FANTASY - Hd6c - R. 1976
- 2/2 LADY SUNSHINE - Hd12e - R. 1976
- 2/2 ROCKEYE - Hf17d - R. 1976
- 2/2 VALLEY CHILD - Hf10b - R. 1976
- 2/2 KING'S FANCY - Hb11a - R. 1977
- 2/2 GRANITE WELLS - He7a - R. 1978
- 2/2 NALCADA - Hh53a - R. 1978
- 2/2 DESERT PATINA -Hh46a - R. 1979
- 2/2 CHARCOAL GREY - Hj88a - R. 1980
- 2/2 GARNET INLAY - Hm126a - R. 1980
- 2/2 GOLD BANNER - Hm126b - R. 1980
- 2/2 MOJAVE ROSE - Hm131a - R. 1980
- 2/2 DESERT BUTTE - Hi39c - R. 1981
- 2/2 MOJAVE BLUE - HI24a - R. 1982
- 2/2 ORD MOUNTAIN - Hj20a - R. 1982
- 2/2 DESERT ORCHID - Ho1a - R. 1983
- 2/2 HIDDEN BEAUTY- Ho1c - R. 1983
- 2/2 SADDLEROCK - Ho32a - R. 1983
- 2/2 GENTLE REPLY - Hp29a - R. 1984
- 2/2 LITANI - unnumbered - R. 1984

2/2 MOJAVE GEM - Hp28b - R. 1984

4/4 AT THE THRESHOLD - Hr6a-T - R. 1986

4/4 FLOATING RESERVE - Hr37a-T - R. 1987 (S. Norris by J. Holden)

4/4 SUMMER WIND - Hp10b-T - R. 1987

2/3 ABOU BEN ADHEM - Ha8a - R. 1967

2/3 DESERT BUTTERCUP - Hh14a - R. 1978

2/3 IZONYA - Hh27a - R. 1978

2/3 KASBAH QUEEN - Hj11b - R. 1978

2/3? LEBANESE LADY - Hj51b - R. 1978

2/3 MOJAVE PEARL - Hh57a - R. 1978

2/3 IBERIAN QUEEN - Hj17a - R. 1979

2/3 ANVIL SPRINGS - Hk12a - R. 1980

2/3 GLORIA DEE - Hk8b - R. 1980

2/3 INDIAN WELLS - Hk8a - R. 1980

2/3 NEW DISCOVERY - Hm51a - R. 1980

2/3 NINE MILE - Hl17a - R. 1984

2/3 PASTEL LADY - Hm60a - R. 1984

2/4 TECOPA - Ho6a - R. 1984

Notes from Back of Book (Rearranged)

I. barnumae is the one similar to *I. mariae* - bright lilac rose

I. barnumae TC is different. TC = Tel Chihane - dark toned black, yellow beard

I. auranitica TJ is *I. auranitica* Tel Jaffna

I. auranitica (brown) and *I. auranitica* (speckled) are different Austin seedlings

Different *I. auraniticas* = *I. auranitica* Kafir Mayamas

I. auranitica Marxam

I. auranitica Tel Jaffna

I. auranitica Tel Sbihii

Austin Seedlings

No. 12	Austin no. - unknown parentage
510-OY-60	yellow - 8-10" - unknown parentage
513-OY	Austin no. - yellow sdlg - seed bought from Austin
Big Sig	Austin 510-OY X 7 - Austin seed - parentage unknown

The (*I. susiana* X *I. basaltica*) is from Austin seed.

Holden Seedlings

Ha17a and Ha23a both have two flowers in the socket. Ha23a, the second flower comes on 6 or 7 days after the first one opens.

Hunt Seedlings

ORB-70-5 = Esther The Queen X Imam Ahmid
= **Oh That Beard**

Norris Seedlings

Norris SN-1 Sam Norris tetra (?) aril: (Bushey B66T10 x *I. sar*) - same as Norris C-N75J

Rich Seedlings

- 0CR64-22A Kerr K55-9A **X** (Kerr K53-44DF x *I. atrofusca*)
- R65-12B Kerr K56-4-O **X** Clark sdlg (black): (Judean Cream x *I. susiana*)
- R65-12D See R65-12B
- R69-131A CR64-22A **X** TB633A - pale yellow
- R69-108A Bagdad Beauty **X** Pink Formal
- R69-128 R65-12B **X** Pink Formal
- R71-81 R65-12D **X** TB634A (white): ((Fair Enough x July Beauty) x Slick Chick)
- 1/3 R72-19F R64-16 x *I. rosalie* Prodan - 1/3 arilpum
- R73-59
- 3/3 R73-97 (Austin W83-0 x (Bagdad Beauty x Kerr K55-3-0)) **X** *I. stolonifera* (USSR) - counted 32 chr
- Quinta** (Kelita Adah **X** Clark 60C2-1A: (Jallah Effendi x Austin sdlg: (*I. gatesii* x *I. aurantica*)) - counted pentaploid

Street Seedlings

- SS-T-59 *I. aphylla* **X** Artemis - Sam Street seedling via Wiloh [Wilkes]

Seedlings Timbs

- A-15 (*I. croatica (aphylla)* **X** Winter Olympics)
- OT-1 (*I. croatica (aphylla)* x Winter Olympics) **X** Persian Pansy

Werckmeister Seedlings

- Bronze Beauty Van Tubergen x Werckmeister 1916: (Teucros x *I. susiana*) (tetra.= 42c)
= **Werckmeister's Beauty**

Wilkes Seedlings

WW1, WW2, etc. are Wiloh Wilkes seedlings sent me in fall 1973

WW1	2/3 RWW69-6 (2/3)
WW2	2/3 RWW69-6#7 - near white - haft peppered pink (2/3)
WW3	2/3 RWW69-3A (2/3)
WW4	2/3 RWW69-6#1 (2/3)
WW5	2/4 (MG10Sal x W7) X W3-Sal A-70 - coral cream
WW6	2/4 (MG10Sal x W7) X Arjuna 70-6 - rose tan
WW7	2/4 (MG10Sal x W7) X Arjuna 70-2 - tan bronze or something
WW8	2/4 (MG10Sal x W7-K) X sib (MG10Sal x W7-J) 72-1 - light rose
WW9	2/4 RG-Ahmid X (Balt-Sal x Sal-Mara) 70-2 - late blooming dark rose.
WW10	2/4 (MG10Sal x W7) x W3-Sal A-72 - pastel pink
WW11	3/4 (MG10Sal x W7B) x Persian Pansy - should be blue
WW12	2/4 (MG10Sal x W7) X JBT-K - shorter green
WW13	2/4 (MG10Sal x W7-K) X J-8 - palest pink
WW14	2/4 GM6 X Kashan - lavender & rose
WW15	2/4 (MG10Sal x W7) X JBT-I - rose
WW16	2/4 (MG10Sal x W7) X W7-I - rosy
WW17	2/4 (MG10Sal x W7) X Arjuna 70-2
WW18	2/4 (MG10Sal x W7) X W3Sal 71-3 - orchid
WW19	2/4 (MG10Sal x W7) X W7-F - pale violet
WW20	2/4 (MG10Sal x W7) X W7-I or J
WW21	2/4 (MG10Sal-W7) X Arjuna - rose violet
WW22	2/4 (MG10Sal-W7) X W3Sal 71-3 - light orchid
WW23	2/4 (MG10Sal x W7) X W3Sal A-70

Witt Seedlings

JW1	Witt rose sdlg Dawn X Ruby Round falls
JW2	Witt blue sdlg Princess Royal X
JW3	Unidentified blue BB
JW4	70-12-J, pale blue MTB: ((Blue Mouse x I. reginae) X unknown) – sib to Shady Sands

Other people's crosses - divisions given to me [Holden].

Traded onco sdgls to Cleo Palmer for these:

Ghio 67-96J	(((Sharksiana x I. balkana) x pink sdlg) x Native Dancer) x Commentary) X Claudia Rene
Ghio 67-96Z	Sib to Ghio 67-96J

Ghio 68-116 (((Sharksiana x I. balkana) x pink sdlg) x Native Dancer)
x Commentary) **X** Center Stage: (Claudia Rene x Moon
River)

Cleo Palmer 69141 Regina Maria **X** (Silver Chalice x Whole Cloth)

Cleo Palmer 70131 ((South Pacific x Whole Cloth) **X** (Silver Chalice x Whole
Cloth))