```
% this is ../../crops/18r/planning/current pedigrees/primary dominants/les9- mo20w
% generated Friday, June 01, 2018 at 21:28:50 UTC (=1527888530.727919) by compute_pedigrees/1.
% Horizontal pedigrees, generations at same indentation. S: Mo20W; W: W23; M: M14.
% !!! => cross was not by Toni; references to image locations on right.
% Mo20W/Les9-
06R0007:0000000 x 06R0007:0000000
      06R0007:0000711 x 06R0007:0000709
           06N201:S0008302 x 06N1023:0001110
                07R201:S0023102 x 07R2504:0055207
                                                      111
                07R201:S0030715 x 07R2504:0055207
                                                      !!!
                07R201:S0034308 x 07R2504:0055201
                                                      111
                                                              07R2504:0055201: [07r/gimmel/11.8-[268,269,270]]
                07R301:W0024209 x 07R2504:0055213
                07R301:W0085302 x 07R2504:0055207
                                                       111
                07R401:M0010810 x 07R2504:0055207
                                                      !!!
                07R401:M0026501 \times 07R2504:0055213
                07R401:M0032503 x 07R2504:0055201
                                                              07R2504:0055201: [07r/gimmel/11.8-[268,269,270]]
                                                       111
           06N201:S0014103 x 06N1023:0001103
           06N301:W0007801 x 06N1023:0001110
      06R200:S00I2213 x 06R0007:0000707
           06N201:S0006807 x 06N1007:0003707
           06N201:S0013402 x 06N1007:0003701
                07R201:S0034302 x 07R2502:0054808
                                                       111
                07R401:M0032208 x 07R2502:0054808
                                                       !!!
           06N201:S0013503 x 06N1007:0003703
           06N201:S0013609 x 06N1007:0003706
                07R201:S0031804 x 07R2498:0054904
                                                       !!!
                07R301:W0084701 x 07R2498:0054904
                                                       111
                07R401:M0010801 x 07R2498:0054904
                                                      111
                09R201:S0043602 x 09R2498:0022007
                09R201:S0043605 x 09R2498:0022010
                                                              09R2498:0022010: [09r/bet/8.9-[360]]
                     10R205:S0002304 x 10R2244:0028701
                                                                   10R2244:0028701: [10r/gimmel/12.8-[235]]
                     10R205:S0007605 x 10R2244:0028706
                                                                   10R2244:0028706: [10r/gimmel/12.8-[236]]
                          11R205:S0052002 x 11R3263:0021202
                                                                        11R3263:0021202: [11r/aleph/19.8-[1107]]
                               •11N205:S0036710 x 11N3445:0015105
                                    12N3616:0024405 x 12N3616:0024412
                                    12R205:S0008515 x 12R3616:0026908
                                                                                  12R3616:0026908: [12r/aleph/9.8-[2025]]
                                         12N3990:0024511 x 12N3990:0024511
                                         12N405:M0042503 x 12N3990:0024509
                                    12R503:B0012404 x 12R3616:0026905
                                                                                  12R3616:0026905: [12r/aleph/9.8-[2030]]
                                    12R503:B0012410 x 12R3616:0026908
                                                                                  12R3616:0026908: [12r/aleph/9.8-[2025]]
                                    12R503:B0012513 x 12R3616:0026902
                                                                                  12R3616:0026902: [12r/aleph/9.8-[2028]]
                                    14R3616:0012302 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012303 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012305 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
```

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les9- mo20w
                  Fri Jun 01 16:28:50 2018
                                    14R3616:0012307 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012308 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012312 x 14R3616:0012311
                                                                                 14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012313 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012314 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012315 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012316 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                                    14R3616:0012318 x 14R3616:0012311
                                                                                  14R3616:0012311: [14r/bet/20.8-[2219]]
                               11N205:S0036711 x 11N3445:0015107
                                    14R4261:0012414 x 14R4261:0012412
                                                                                 14R4261:0012412: [14r/bet/20.8-[2232]]
                                    14R4261:0012416 x 14R4261:0012412
                                                                                 14R4261:0012412: [14r/bet/20.8-[2232]]
                                    14R4261:0012417 x 14R4261:0012412
                                                                                 14R4261:0012412: [14r/bet/20.8-[2232]]
                                    14R4261:0012418 x 14R4261:0012412
                                                                                 14R4261:0012412: [14r/bet/20.8-[2232]]
                                    14R4261:0012419 x 14R4261:0012412
                                                                                 14R4261:0012412: [14r/bet/20.8-[2232]]
                               11N205:S0037901 x 11N3445:0015109
                          11R205:S0052015 x 11R3263:0021205
                                                                       11R3263:0021205: [11r/aleph/19.8-[1106]]
                09R201:S0043607 x 09R2498:0022012
                                                             09R2498:0022012: [09r/bet/8.9-[350]]
           06N301:W0024201 \times 06N1007:0003707
           06N301:W0031705 x 06N1007:0003701
           06N301:W0032002 x 06N1007:0003703
           06N301:W0032005 x 06N1007:0003706
                09R301:W0034712 x 09R2499:0022101
                     10R305:W0005405 x 10R2245:0028810
                                                                  10R2245:0028810: [10r/gimmel/12.8-[238]]
                          11R305:W0043802 x 11R3264:0021306
                                                                        11R3264:0021306: [11r/aleph/19.8-[1102,1105]]
                               11N305:W0032911 x 11N3446:0015213
                                    12R305:W0003814 x 12R3715:0027004
                                                                                  12R3715:0027004: [12r/bet/3.8-[56],12r/be
t/8.8-[182]]
                                         13R4093:0008004 x 13R4093:0008006
                                                                                     13R4093:0008004: [13r/bet/1.8-[1752]
                                              14R4262:0012501 x 14R4262:0012509
                                                                                           14R4262:0012509: [14r/bet/20.8-
[2229]]
                                              14R4262:0012502 x 14R4262:0012509
                                                                                           14R4262:0012509: [14r/bet/20.8-
[2229]]
                                              14R4262:0012504 x 14R4262:0012509
                                                                                           14R4262:0012509: [14r/bet/20.8-
[2229]]
                                              14R4262:0012511 x 14R4262:0012509
                                                                                            14R4262:0012509: [14r/bet/20.8-
[22291]
                                              14R4262:0012515 x 14R4262:0012509
                                                                                            14R4262:0012509: [14r/bet/20.8-
[2229]]
                                              14R4262:0012516 x 14R4262:0012509
                                                                                           14R4262:0012509: [14r/bet/20.8-
[2229]]
                                         13R504:B0003305 x 13R4093:0008006
                                    12R305:W0003817 x 12R3715:0027012
                                         12N504:B0039811 x 12N3991:0024708
                                         12N504:B0039812 x 12N3991:0024708
```

12N504:B0039901 x 12N3991:0024708

12R3715:0027014: [12r/bet/3.8-[55],12r/be

12R3715:0027014 x 12R3715:0027014

```
t/8.8-[183]] 12R3715:0027014: [12r/bet/3.8-[55],12r/bet/8.8-[183]]
                                    13R305:W0000806 x 13R3715:0024502
                                    13R305:W0003504 x 13R3715:0024502
                                    14R305:W0000809 x 14R3715:0021706
                                                                                 14R3715:0021706: [14r/bet/23.8-[2316]]
                                    14R305:W0000810 x 14R3715:0021713
                                                                                 14R3715:0021713: [14r/bet/23.8-[2317]]
                                    14R305:W0000811 x 14R3715:0021714
                                                                                 14R3715:0021714: [14r/bet/23.8-[2329]]
                               11N305:W0035309 x 11N3446:0015205
                               11N305:W0035605 x 11N3446:0015205
                               11N305:W0037402 x 11N3446:0015206
                               11N305:W0037410 x 11N3446:0015206
                     10R305:W0005409 x 10R2245:0028813
                                                                  10R2245:0028813: [10r/gimmel/12.8-[239]]
                     10R305:W0006212 x 10R2245:0028814
                                                                  10R2245:0028814: [10r/gimmel/12.8-[240]]
                09R301:W0035007 x 09R2499:0022104
                09R301:W0042508 x 09R2499:0022108
                09R301:W0042806 x 09R2499:0022113
                                                             09R2499:0022113: [09r/bet/8.9-[375,380]]
                09R301:W0047603 x 09R2499:0022108
           06N401:M0012703 x 06N1007:0003701
           06N401:M0012906 \times 06N1007:0003703
                09R401:M0042111 x 09R2501:0022206
                                                             09R2501:0022206: [09r/bet/8.9-[365]]
                     10R405:M0007804 x 10R2246:0028906
                                                                 10R2246:0028906: [10r/gimmel/12.8-[241]]
                          11N405:M0032804 x 11N3265:0015305
                               12R405:M0008209 x 12R3618:0027109
                                                                            12R3618:0027109: [12r/aleph/9.8-[2045]]
                                    12N3993:0024901 x 12N3993:0024901
                                    12N3993:0024902 x 12N3993:0024902
                                    12N3993:0024910 x 12N3993:0024910
                                    12N405:M0035701 x 12N3993:0024902
                                    12N405:M0035703 x 12N3993:0024910
                                         13R4094:0008101 x 13R4094:0008107
                                                                                     13R4094:0008107: [13r/bet/1.8-[1759]
                                        13R4094:0008104 x 13R4094:0008107
                                                                                      13R4094:0008104: [13r/bet/1.8-[1758]
        13R4094:0008107: [13r/bet/1.8-[1759]]
                                         13R4094:0008105 x 13R4094:0008107
                                                                                      13R4094:0008107: [13r/bet/1.8-[1759]
]
                                         13R4094:0008107 x 13R4094:0008107
                                                                                      13R4094:0008107: [13r/bet/1.8-[1759]
        13R4094:0008107: [13r/bet/1.8-[1759]]
                                         13R504:B0003314 x 13R4094:0008107
                                                                                      13R4094:0008107: [13r/bet/1.8-[1759]
1
                                        14R4094:0012603 x 14R4094:0012606
                                                                                      14R4094:0012606: [14r/bet/20.8-[2225]
]]
                                        14R4094:0012605 x 14R4094:0012606
                                                                                      14R4094:0012606: [14r/bet/20.8-[2225]
]]
                                         14R4094:0012606 x 14R4094:0012606
                                                                                      14R4094:0012606: [14r/bet/20.8-[2225]
11
        14R4094:0012606: [14r/bet/20.8-[2225]]
                                    12N405:M0035708 x 12N3993:0024901
                                    12N405:M0039409 x 12N3993:0024901
                                    12N405:M0039610 x 12N3993:0024909
                               12R405:M0008214 x 12R3618:0027105
                                                                            12R3618:0027105: [12r/aleph/9.8-[2036]]
```

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11N405:M0032809 x 11N3265:0015303

10R405:M0007805 x 10R2246:0028907

09R401:M0043202 x 09R2501:0022209

06R200:S00I5508 x 06R0007:0000708

06R200:S00I5601 x 06R0007:0000709 06R300:W00I3503 x 06R0007:0000707

06R300:W00I3809 x 06R0007:0000709

11N305:W0033804 x 11N1459:0015502

11N305:W0035903 x 11N1459:0015510

11N305:W0039507 x 11N1459:0015509

11N405:M0033604 x 11N1459:0015502

 $11N405:M0036406 \times 11N1459:0015509$ 

06R400:M00I2406 x 06R0007:0000708

10R2246:0028907: [10r/gimmel/12.8-[242]]

09R2501:0022209: [09r/bet/8.9-[370]]