from diploids seems to be justified. Some small but statistically significant effects of seedling age were manifested among the tetraploids. Nevertheless, these effects were overridden by the large differences between diploids and tetraploids. In the population of seedlings in this study, which included five different progenies, no plant would have been misclassified in the basis of either stomata length or cladophyll width.

The assurance provided by using either of the two above characters in detecting colchicine induced tetraploids is greater than that reported by Speckmann *et al.* in rye grass (5), where overlap in stomata length was recorded. Although there were some differences between $2n$ and $4n$ seedlings in number and length of asparagus cladophylls, there was so much variation in the patterns as to make these two characters unsuitable for screening purposes. These results, regarding length of cladophylls, do not support the observation of Braak and Zeilinga (1).

Table 1. Characters used in classifying asparagus diploids and colchicine induced tetrapolids.

Character	Ploidy level			
	Diploid		Tetraploid	
	mean	range	mean	range
Stomata Length (μ)	21.3	(18.8 - 24.0)	34.2**	(25.8 - 46.8)
Cladophyll width (μ)	265.2	(217.0 - 295.5)	382.2**	(309.5 - 488.0)
Cladophyll length (mm)	18.1	(11.9 - 26.0)	21.0	(9.3 - 38.2)
Cladophyll number per whorl	6.1	(4.6 - 8.4)	5.0	(2.4 - 11.5)

** Significant from diploid at 1% level.

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The Inheritance of Mature Fruit Color in *Capsicum pubescens* R. & P.[1]

Gaafar M. El Hassan and Paul G. Smith

University of California, Davis

Abstract: **Red and yellow mature fruit color in *Capsicum pubescens* is controlled by a single gene with yellow (y) recessive to red (y^+).**

In mature fruits of *Capsicum annuum* L. yellow color (y) is recessive to red (y^+) (1,2,3,4,5,7). This report deals with the inheritance of red and yellow color of *C. pubescens* R. & P., a cultivated species of South American origin. The yellow (or orange yellow) color of *C. pubescens* is different from the lemon yellow of *C. annuum* L. referred to by Kormos (3), but may be similar to his orange color. Both the yellow (or orange) and the lemon yellow fruit colors are known in *C. pubescens, C. pendulum, C. chinense* and *C. annuum.*

A yellow-fruited, self-compatible line of *C. pubescens* (SA265) was crossed with a red-fruited self-incompatible line (SA359) of this species in the greenhouse. All the F_1 plants were red fruited and self-compatible. F_2 and backcross generations were obtained by selfing F_1 plants and crossing them to SA265 plants, respectively. Plants in the two segregating generations were scored for fruit-color with results show in Table 1. The Chi square values indicated that yellow and red mature fruit colors of *C. pubescens* are controlled by a single gene with yellow (y) recessive as in other species of *Capsicum.*

Table 1. Segregation for mature fruit color of a cross involving *C. pubescens.*

Generation	Total no. of plants	Mature fruit color: Red	Mature fruit color: Yellow	Expected ratio	X^2	P
P_1(SA359)		all				
P_2(SA265)			all			
F_1		all				
F_2	42	33	9	3:1	0.127	$>.70$
BC(F_1 x SA265)	21	13	8	1:1	0.782	$>.30$

Because of the high degree of cross sterility of *C. pubescens* with other cultivated species (6) no attempt has been made to determine whether the genes in the different species are allelic. The yellow color of mature fruits in *Capsicum* has been observed only once in wild material of *C. chinense* but not in the wild forms of the other species. Perhaps the presence of yellow mature fruits in these 4 species is a product of parallel evolution which occurred following demostication.

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