forms would be better than in Florida, where such material would have difficulty surviving or, at least, producing seed during the warm and humid summer rainy season.

Many F_1 hybrids, even though incapable of seed production, can be maintained by vegetative propagation through the rooting of vine cuttings. Rooted cuttings have even survived air transportation from Florida to Holland.

Although the oriental species, aureus, mungo, angularis, aconitifolius, calcaratus, radiatus, et al may have valuable characteristics, the likelihood of transferring these to the occidental vulgaris and lunatus commercial types appears remote or perhaps impossible to this observer, who has tried unsuccessfully many times to use these oriental types and in whose opinion the floral morphology, climatic adaptation and plant habit of these forms suggest a stronger affinity with the genus Vigna than with the occidental forms of Phaseolus. Either separate generic status or the classification of these forms as a section of the genus Vigna would seem more in keeping with actual botanical relationships.

Interspecific Hybridization in Phaseolus at the University of Florida

A. P. Lorz

Herewith is presented a list of the crosses attempted and brief remarks concerning the degree of success achieved:

1. *P. vulgaris* x *P. coccineus*

   Both reciprocals successful with F_1, F_2 and physiological cripples obtained.

2. *P. vulgaris* x *P. polyanthus* (short day)

   F_1 plants grew vigorously in field but produced flowers only under artificially shortened photoperiods during the summer. No seed produced. No more polyanthus material available.

3. *P. vulgaris* x *P. xanthotrichus*

   F_1 achieved, intermediate between two parents. Seed production poor. Four F_2 plants obtained but material subsequently lost. No more xanthotrichus material available. This cross needs further exploration.

4. P. vulgaris x P. glabellus

Glabellus somewhat resembles coccineus. Derivatives from F1's and backcrosses to vulgaris were followed for several years but finally abandoned. Perhaps, with different vulgaris parentage, something good might yet be possible from this cross. No more glabellus material available.

5. P. vulgaris x P. acutifolius

Several young embryos cultured but lost when transferred to soil. Reader is referred to S. Honma (member BIC) for account of greater success with this cross.

* 6.	P. vulgaris	x P. lathyroides	Unsuccessful
7.	"	x P. atropurpureus	"
8.	"	x P. aureus	"
* 9.	"	x P. mungo	"
10.	"	x P. angularis	"
11.	"	x P. calcaratus	"
12.	"	x P. helvolus (Strophostyles helvolus)	Unsuccessful
13.	"	x P. speciosus	Unsuccessful
14.	"	x P. lunatus (and reciprocal)	"

15. P. lunatus x P. polystachyus

Initial cross easily achieved with lima as seed parent but reciprocal unsuccessful. F1 rampant and vigorous but self-sterile. Few good pollen grains used to obtain fifteen backcrosses to P. lunatus (Fordhook). Possibilities from this cross appear good. Chief objective is the introduction of hypogeal germination into P. lunatus to prevent bald heads and breaking of hypocotyl during emergence.

16. P. lunatus x Phaseolus sp. (P. I. No. 201203)

Success and objective about the same as that for the lunatus x polystachyus cross but male parent has more epidermal hairiness of the leaves.

*Success reported by A. B. Strand (Proc. A. S. H. S. 42: 569 and in private correspondence).