very near Blue Lake. Maturity very near Tendercrop in Western Oregon; much later in Midwest and East. Germination relatively good in cool soils of early spring. Slightly less sensitive than OSU 2065 to blossom drop at high temperatures, but more sensitive than Tendercrop. Processed product closely approaches Blue Lake.

OSU 2065. Plant vigorous, sprawly; heavy foliage cover under good culture; leaves medium to large size, dark green; pods generally four to five inches long, shorter than OSU 949; color medium, fleshiness medium to good, smoothness good—resembling FM-1 more closely than OSU 949. Taste very near Blue Lake. Maturity generally two to four days later than 949; very late in Midwest and East. Germination relatively good in cool soils of early spring. More sensitive to blossom drop at high temperatures than OSU 949. Processed product very closely approaches Blue Lake.

Seed Availability

Small lots of seed of each of the two varieties were made available to seedsmen in 1965. Major increase in 1965 was made by Ferry-Morse Seed Co. Seed availability will be extremely limited in 1966. Write to W. A. Frazier, Horticulture Department, Oregon State University, Corvallis, Oregon, if small packets of seed are desired.

Acknowledgements

We gratefully acknowledge the cooperation, over a period of several years, of several western seedsmen and their personnel; of several processing firms—thei personnel and growers; and of county agents in various counties of the state. Special recognition is due Mr. Ed Pitkin, Mr. Truman Chase, Mr. Rolland Beglau and Mr. Carl Robertson of Eugene Fruit Growers who kindly cooperated in the first years of testing of these new types of beans, and who have continued cooperative work with new bean lines; also to Mr. Irv Parberry, Walt Smith, Farmer Smith, Loyal Creswell, and Dorsey Gray of Stayton Canners Coop. The cooperation of California Packing Corporation, Northwest Packing Co., Kelly-Farquhar, United Growers, Stokelys, and Portland Canning Co., is also gratefully acknowledged.

Beans in Northern Nigeria

O. A. Inyang1 and W. M. Steele2

The programme may be divided into two parts:

1. Green Beans (O.A.I.)

Green beans, Phaseolus vulgaris, are grown only on a relatively small scale in market gardens near large cities. The crop is mainly consumed by expatriate communities because at present it is not a popular vegetable among Nigerians.

1 Institute for Agricultural Research, Ahmadu Bello University, Zaria.
2 Agricultural Research Station, Ahmadu Bello University, Kano.
A succession of sowings are made during the rainy season (May-October) and several crops may be harvested from gardens irrigated during the dry season (November-April). Heaviest yields are obtained from the wet season crop, although some disease losses can occur through root rot, Fusarium sp., and anthracnose, Colletotrichum lindemuthianum. The dry season crop is in great demand because other vegetables are scarce during these months. Although yields under irrigation are usually lower than during the rains, the quality is excellent and the higher price received compensates the farmer for increased production costs.

So far none of the snap-podded varieties tested has given yields approaching those of the string bean 'Canadian Wonder.' Cornell 14, Tendergreen, and Phoenix Claudia are among the best quality varieties tested in the meantime.

2. Grain Legumes grown as a Field Crop (W.M.S.)

Legumes grown primarily for their dry seeds, which are an important human food, are collectively called "grain legumes" in Northern Nigeria. Arachis hypogea and Glycine max are excluded from this group, although both are cultivated, the former on a very large scale.

There are few grain legumes in Northern Nigeria and research is concentrated at present on the selection of high yielding varieties from the collection of the indigenous cowpea Vigna unguiculata L. (Walp) (syn. V. sinensis L. (Savi)). In this species there is a strong consumer preference for large white seeds having a hilum ring pigment distribution and a rough testa - characters which are strongly associated with prostrate plant habit and a short-day photoperiod requirement. The rapid absorption of water during the soaking period which precedes food preparation is associated with a rough surfaced, thin testa. West Africa is a centre of diversity of Vigna and may have been a centre of domestication of V. unguiculata. Variants representing the full range of characters described from all parts of the world in which V. unguiculata is cultivated have been identified in the Northern Nigerian collection, which may be of particular interest to breeders elsewhere as a source of disease resistance.

Other less important grain legumes in Northern Nigeria are:

- Voandzeia subterranea The Bambarra groundnut
- Phaseolus lunatus Lima bean
- Sphenostylis stenocarpa Yam bean
- Kerstingiella geocarpa Underground cowpea
- Canavalia ensiformis Sword bean
- Psophocarpus tetragonolobus Winged bean