Characteristics of Cowpea Varieties

Vigna sinensis

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Introduction

The cowpea (Vigna sinensis) is probably one of the most ancient vegetable sources of human food. It is easily grown, and under favorable conditions the seeds are often carried over from season to season in or on the soil.

It is undoubtedly a native of the tropical area in central Africa, where numbers of wild types are found today. It was probably carried into northern Africa, and thence to the European and Asian mainland around the Mediterranean Sea, by wandering peoples and the slave caravans.

A large number of cultivated varieties is found in southern Europe, northern Africa, and across southern Asia and the adjacent islands, indicating that the cowpea is of ancient cultivation for human food.

The cowpea was not found in the New World, but it was introduced into the West Indies at an early date by the Spaniards. Whether is was brought to the New World as one of the food crops grown in Spain, or was brought from Africa by slave ships as food, is not definitely known.

This plant was probably introduced on the North American continent from the Spanish islands early in our history. Just how it reached the English settlements is unknown, but it was grown in North Carolina by 1714 and was reportedly cultivated in Virginia before 1775.

The cowpea is now one of the most widely known and grown leguminous crops of the Southern states. It succeeds better under a great diversity of climatic, soil and cultural conditions than most other legume crops. It is grown as far north as southern Ohio, Illinois, Indiana, and New Jersey but, in general, is best suited for the climatic conditions found further south.

Reasons for Undertaking the Work

While selection and crossing of cowpeas has been done by horticulturists for many years, the work, with few exceptions, has been spasmodic

and devoted chiefly to search for wilt- or nematode-resistant varieties. Only one or two states have had long range and intensively carried out projects of this kind. In recent years the interest in developing the cowpea as a staple part of the diet has led to more intensive breeding, particularly of the so-called Southern Pea or edible varieties.

In those states where more or less intensive breeding and selection have been underway for many years, the program has resulted in large numbers of strains or varieties being released. The naming of these releases, many from different states, has resulted in considerable duplication and confusion in names.

In the early 1940's the Oklahoma Agricultural Experiment Station began collecting seed of cowpea strains and varieties for establishment of a variety trial. It soon became apparent that there was considerable confusion in identification and naming of varieties. For example, two lots of Brabham were secured from different sources. The seeds of one lot were quite uniform in coloring, size and shape, and subsequently were used in establishing a pure line. Seeds in the other lot were true to color pattern but varied in size and shape, and this variation was reproduced in test plantings. Two lots of seed, both identified as Dixie Queen, were similar in appearance; but when they were planted, one lot produced a plant with prostrate purplish foliage and purple pods, while the other produced plants having a nearly erect, green foliage and straw-colored pods. There were numerous other instances of seed lots given the same name but producing different types of plants and of lots having different names but producing similar types of plants. Often what appeared to be the same variety was received from several sources and under a different name from each source. Therefore, an effort was started to develop a systematic description which could be the basis for establishing some uniformity of varietal terminology for the cowpea.

Materials and Methods

In order to establish pure lines of as many cowpea varieties as possible, all experiment stations in the Southern states were asked to provide small quantities of seed of each variety grown in their respective states. Similar requests were also made to several other states where cowpeas were grown. Varietal samples were purchased from retail seed houses in Oklahoma, Texas, Louisiana, South Carolina, Georgia, and Virginia. Additional samples were obtained from the U. S. Department of Agriculture. These came from Beltsville, Maryland, and

from the Southern Regional Plant Introduction Station at Experiment, Georgia.

These requests and purchases resulted in the accession of about 250 lots of seed. Many of the varieties from the state experiment stations were from seed they had obtained from other states, and were so labeled.

After careful checking in field and laboratory over a period of two or three years, those strains found to be simply duplications in all respects were eliminated. Only the seeds thought to be most representative of the variety were kept.

Because of the limited area available, single-row plots were used during the preliminary years of the study. As much isolation as possible was obtained by alternating plots of cowpeas and mung beans in the same row and in adjacent rows.

Later, in order to insure enough seed for continuing the purity test and establishing the variety test, all varieties which might be used in these tests were changed from single- to two-row plots. All plots were planted in hills, two feet apart, twenty hills to the row, and all thinned to single-plant hills. This spacing gave each plant sufficient area to assume its natural shape and growth pattern.

Records were kept on plant vigor; growth habit; fineness of stems, branches and foliage; drought and disease resistance; color of blooms and pods and their position in relation to the stems and foliage; and the relative maturity period.

After harvest, notes were made on seed size, shape, color, and color pattern, as well as other characteristics which might aid in identifying the variety.

Several years of study of the growth habits of a large number of varieties, both in the station variety test and in the pure-line planting, indicated that growth habit and plant characteristics were not sufficiently different for use in distinguishing between varieties. Some varieties produced upright, bush-type plants one year and more or less prostrate, vining plants another year or even in the same year with different dates or at different places of planting. This was illustrated in 1948 when two plots of New Era only twenty feet apart were planted about forty days apart. A plot planted in early May produced prostrate to semi-prostrate plants, while the other plot planted in late July with seed from the same source produced only short-branched, bush-type plants. For many varieties, plants in the tests showed many differences from published descriptions of the growth habits of those varieties. Therefore plant

type was abandoned as a main division in the classification and description of varieties

A division into edible and field varieties is too artificial, as many varieties can be classified in both groups. Before the widespread demand for a better table pea, such varieties as Whippoorwill, New Era, Holstein, and Potomac were grown for home consumption as well as for field use.

It was found that seed coat color and color patterns, plus seed shape and other characteristics, provided the most consistent basis on which to build a description and classification.

Seed Identification Key

In this key, the numeral in parenthesis after each varietal name refers to the number preceding the description of that variety on pages 10 through 43.

Varieties are grouped first by seed color, which is usually the most obvious characteristic, and then by shape. The terms used to describe shapes are pictured in the drawings on page 47. Other drawings on this page show various terms such as "keel" and "eye" used in the key and in the varietal descriptions. Other terms used are defined on page 46.

In the "eyed" varieties, pod color is sometimes used as a secondary means of identification because of the great variety of eye shapes found in this group.

Single Color

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Black
Crowder shape—Black Crowder (7).
Ovoid—Blacks (20), Honolulu (77), Large Blacks (86),
Oklahoma Black (93).
Rhomboid to kidney shape—Black (Ala.) (6).
Buff (see "Tan")
Brown (see "Tan")
Clay (see "Tan")
Cream (see "White")
Red
Kidney shape—Vigna sesquipedalis (134).
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Ovoid—Chinese Red and Chinese Red 9278NJ (40 and 41), Early Red (65), Early Red K736 (66), Red Hull Crowder (SC) (116), Red Ripper (117), Red Ripper K711 (118).

Clay, brown, buff, tan.

Kidney shape—Early Buff (61), Catjang (39), Clay or Clay Brown (42, 43), Wonderful K716 (142).

Ovoid—Brown Purple Pod (32), Buff or Jackson 21 (33), Clay 1 (44), Clay K713 (45), Puffy Pod (Ala. and Ga.) (105, 106), Six Weeks (Ala.) or Early Six Weeks (Ga.) (124), Suwanee (128).

Rhomboid—Iron (78), Iron K329 (79), Iron K892 (80), Iron K894 (81).

White (or cream)

Crowder shape—Cream Crowder (or Cornfield English) (53).

Kidney shape—Cream (or Cream Pea, Progressive White, or Texas Cream) (50), Cream Long Pod (54), Cream 40 (Texas) (52), Cream 12 (Texas) (51), Sumptuous, or Conch (127).

Round—Lady Edible, or Rice (85).

Rhomboid to round—Lady (Ala.) (84), or Rice (Ala.) (123).

Bi-color

Marbled

Red marbled with dark brown

Ovoid—Red Whippoorwill (121).

Tan or buff marbled with brown

Oval to ovoid—P. I. 162925 (101), Whippoorwill (Ala.) (136), Whippoorwill (N. C.) (137), Whippoorwill (Okla.) (138).

Rhomboid—Brabham (23), Brabham K892 (26), Brabham K737 (25), P. I. 145198 A (94).

Speckled

Red and blue speckled, with red eye Ovoid to kidney-shaped—Columbia (46), Columbia K713 (47), Blue speckles on tan, buff or clay

Crowder shape—Calhoun (35).

Ovoid to kidney—Blue Goose (or Taylor, Gray Crowder, or Speckled Crowder (Ga.) (21).

Rhomboid—New Era (or Blue Whips (Ga.) or P.I. 152199) (92).

Patterned

Black and white

Ovoid—Holstein (76).

Red and white (sometimes with red spots in white area)

Ovoid—Potomac (or Calico, Red Speckled Crowder, Red Spotted Crowder, or Polecat) (103).

"Eyed"

White with black eye

Eye completely around hilum

Kidney shape—Blackeye 5 (12), Blackeye 7 (13), Blackeye 7711 (16), Blackeye 8152 (17), Calva 6 (38), Early Ramshorn Blackeye (64), Early Wilt Resistant Ramshorn Blackeye (71), Giant Wilt Resistant Ramshorn Blackeye (73).

Ovoid—Blackeye 72 (Okla.) (14), Blackeye 99439 (N. J.) (18), Blackeye (or Blackeye (Calif.), Blackeye (Ga.)) (8).

Eye not completely around hilum ("horseshoe" eye)

Kidney shape—Wilt Resistant Ramshorn Blackeye (141).

Ovoid—Blackeye (Ala.) (9), Blackeye 1239 (Okla.) (15), Calva 3 (37), Extra Early Blackeye (72), Mississippi 7 (89), Monarch Blackeye (Ark.) (91), P. I. 148198B, or P. I. 154134 (96), P. I. 162699 (99), P. I. 162924 (100), Virginia Blackeye, or Large Virginia Blackeye (87).

Crowder or semi-crowder shape—Ala Crowder (3), Blackeye White Crowder (19).

White with brown eye

Eye completely around hilum

Kidney shape (irregular); speckled with black; pods straw-colored—Alabunch (2).

Ovoid; eye small

Pods purple—Bunch Purple Hull (34), Dixie Queen Browneye Purple Pod (Ga.) (59), Purple Hull (Ga.) (108), Purple Hull 530 (112),

Eye not completely around hilum

Ovoid; eye small "Horseshoe" solid color

Pods straw-colored—Alabrowneye (1), Alalong (Ala.) (4), Dixie Queen Browneye (58), Early Dixie Queen (Ala., Ga.) (62), Early Six Weeks Browneye (69).

Pods purple—Browneye (29), Browneye Purple Pod, or Purple Hull (Ala.) (30), Dixie Queen Purple Pod (Ala.) (60), Purple Hull 40 (Texas) (111), Purple Hull 3445 (Purple Hull 5036) (113), Purple Hull (R. N. Seed Co.) (109), Purple Hull (W. B. Johnson Seed Co., Okla.) (110).

"Horseshoe" speckled Pods straw-colored—Arlington (5), P. I. 147077 (95).

Rhomboid; eye small
Pods straw-colored—Lady (83).

Crowder shape; eye small
Pods straw-colored—White Browneye Crowder (White
Browneye (R. N. Seed Co.)) (140).

Parti-colored (three colors)

Tan or buff marbled with brown, and blue speckled

Ovoid—Groit (75).

Rhomboid—Victor (or Brabham (W. B. Johnson Seed Co.)) (131), Victor K798 (132), Victor 18 (133).

Buff and white patterned, and buff lightly speckled with black Crowder shape—Speckled Crowder (126).

Description of Varieties

(1) Ala Browneye

Plants: semi-prostrate, vining; stems, medium coarse; branches, medium coarse; foliage, medium coarse; drought resistant.

Flowers: white with yellow base standards; blue tinged wings and keels.

Pods: short (4 to 6") borne even and below foliage; scattered; straw color; rounded; medium thick, tough; curved; medium maturing.

Seeds: small, ovoid; cheeks, round; slightly wrinkled to smooth; keel, discernible; color, white with small, incomplete, brown eye; hilum ring, dark brown.

(2) Alabunch

Plants: semi-prostrate; stems, medium coarse; branches, medium coarse; foliage, medium; drought resistance, fair.

Flowers: white with yellow base standards; very light blue wings and keels.

Pods: medium (6 to 8") long; borne even and above foliage; bunched around plant center; flattened, curved; straw color; medium maturing.

Seeds: medium to large; irregular kidney shaped; cheeks, round; wrinkled; keel, readily discernible; color, creamy white with very small brown eye, speckled with black; hilum ring, densely packed black specks.

(3) Ala Crowder

Plants: semi-prostrate; stems, medium fine; branches, medium; foliage, medium fine; drought resistance, fair.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long; even and above foliage; rounded; slightly curved; straw color; early maturing.

Seeds: small; irregularly rhomboidal (crowder); cheeks, rounded; heavily wrinkled; testa often split; keel, discernible; color, white with small, horseshoe, black eye; hilum ring, black.

(4) Alalong (Ala.)

Plants: semi-prostrate, vining; stems, medium fine; branches, many, medium fine; foliage, medium; drought resistance, good.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium to long (6 to 9"); flattened, oval, curved; mostly scattered, seeds barely touching; straw color; late maturing.

Seeds: medium to small; ovoid; cheeks, round; smooth; keel, barely discernible; color, creamy white; eye, small, incomplete, brown; hilum ring, dark brown.

(5) Arlington

Plants: prostrate to semi-upright; stems, medium fine; branches, medium fine, vining; drought resistance, fair.

Flowers: white keels with light purple wings and standards.

Pods: short (4 to 6") borne on long (8 to 10") above foliage; slightly curved, round; reddish tinged, straw color; early maturing.

Seeds: very small; ovoid to nearly round; cheeks, round; generally smooth; keel, barely discernible; color, creamy white with small, incomplete, light brown eye; speckled with dark brown; hilum ring, brown.

(6) Black (Ala.)

Plants: prostrate; stems, medium fine; branches, long vines, medium fine; foliage, medium fine; drought resistance, good.

Flowers: purple standards and wings; keel almost white.

Pods: short (3 to 5"); semi-round, curved; straw color; borne even and below foliage; medium early maturing.

Seeds: small, semi-kidney to rhomboid shaped; cheeks, round; mostly smooth; keel, discernible; color, black; hilum ring, black.

(7) Black Crowder

Plants: prostrate to semi-prostrate; vining; stems, coarse; branches, coarse; foliage, medium; drought resistance, fair.

Flowers: purple standards and wings; yellow spots at base of standards; faded purple keel.

Pods: medium (6 to 8") long; rounded, seed crowded, curved; brownish straw color; thick, tough; borne even and above foliage; dark brown line of dehiscence; medium early maturing.

Seeds: large; irregularly compressed; cheeks, round; smooth; keel, prominent; color, black; hilum ring, black.

(8) Blackeye (Calif.), Blackeye (Ga.)

Plants: semi-prostrate; stems, medium coarse; branches, medium fine; foliage, medium fine; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purplish wings; faded blue keel.

Pods: medium (6 to 8") long; borne even and above foliage; flattened; brittle; straw color; curved; medium maturing.

Seeds: medium large; kidney shape; cheeks, rounded; finely wrinkled; keel, prominent; color, white with small, complete, black eye; hilum ring, black; testa splits easily.

(9) Blackeye (Ala.)

Plants: prostrate; vining; stems, medium fine; branches, many, medium fine; foliage, medium fine; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); held even and below foliage; scattered; curved; slightly flattened to round; straw color; medium maturing.

Seeds: small; ovoid; cheeks rounded, finely wrinkled; keel, discernible; eye, small, incomplete, black; hilum ring, black.

(10) Blackeye (Calif.)

See Blackeye

(11) Blackeye (Ga.)

See Blackeye

(12) Blackeye 5

Plants: semi-prostrate; vining; medium coarse stem and branches; foliage, medium; drought resistance, fair.

Flowers: white with yellow base standards; very light blue wings; almost white keel.

Pods: medium long (6 to 8"); above foliage, nearly straight; flattened; thin; brittle; early to very early maturing.

Seeds: medium to large; kidney shape; cheeks rounded; finely wrinkled keel discernible; color, white; eye, medium size, complete; hilum ring, indistinguishable.

(13) Blackeye 7

Plants: semi-upright; stems, medium coarse; branches, medium coarse, long; foliage, medium fine; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); mostly above foliage; slightly curved; wide and flat; brittle; straw color; medium maturity.

Seeds: large, kidney shaped; cheeks rounded; finely wrinkled; keel, sharp; color, white with medium size, complete, black eye; hilum ring, black.

(14) Blackeye 72 (Okla.)

Plants: upright to bush; stems, coarse; branches, short, coarse; foliage, thick, coarse; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium short (4 to 6"); held even with foliage; curved; flat; seeds barely touch; straw color; medium maturing.

Seeds: small, ovoid; cheeks, rounded; finely wrinkled; keel, barely discernible; color, white with small, complete, black eye; hilum ring, black.

(15) Blackeye 1239 (Okla.)

Plants: prostrate; very vining; stems, medium fine; branches, fine; foliage, fine; drought resistance, fair.

Flowers: white standards with yellow base; light blue wings; faded blue keel.

Pods: long (7 to 9"); flat; curved; brittle; seeds not touching; straw color; medium maturing.

Seeds: large oval; cheeks, nearly flat; wrinkled; keel, promincolor, white with medium sized, incomplete, black eye; hilum ring, black.

(16) Blackeye 7711

Plants: prostrate; stems, coarse; vining; branches, long, medium coarse; foliage, thick and heavy; drought resistance, fair.

Flowers: very light blue standards with yellow base; light purple wings; faded keel.

Pods: medium to long (6 to 8"); above foliage; curved; flat; wavy; straw color; late maturing.

Seeds: very large; kidney shaped; cheeks, rounded; finely wrinkled; keel, well marked; color, white with medium size, complete, black eye; hilum ring, black.

(17) Blackeye 8152

Plants: semi-upright; stem, fine; large plant; branches, numerous, long, fine; foliage, medium size, thick; drought resistance, fair.

Flowers: very light blue standards with yellow base; light purple wings; faded keel.

Pods: long (6 to 9"); above foliage; curved; flat; brittle; straw color; medium maturing.

Seeds: very large; kidney shaped, cheeks, rounded; finely wrinkled; keel a sharp line; color, white with small, complete, black eye; hilum ring, black.

(18) Blackeye 99439 (N. J.)

Plants: prostrate; vining; stems, medium coarse; branches, medium coarse; foliage, medium fine; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); borne above foliage; curved; flattened; straw color; early maturing.

Seeds: medium size; kidney shaped; cheeks, rounded; finely wrinkled; keel, barely discernible; color, white; eye, small, complete; hilum ring, black.

(19) Blackeye White Crowder.

Plants: prostrate; stems, medium coarse; branches, many, long, medium fine; drought resistance, fair.

Flowers: white with lavender wings and standards.

Pods: medium short (6"); borne even with foliage; scattered; slightly curved; mostly flattened; straw color with dark line along line of dehiscence; medium early maturing.

Seeds: medium to small; ovoid but sometimes irregular crowder; cheeks, round; finely wrinkled; keel, discernible; color, white with small, incomplete, black eye; hilum ring, black.

(20) Blacks

Plants: semi-upright; stems, fine; branches, fine; vining; foliage, fine; drought resistance, poor.

Flowers: purple standards and wings, yellow spots at base of standards; keel, faded purple.

Pods: medium (5 to 6") short; nearly straight; thin; brittle; straw color; borne even and above foliage; very early maturing.

Seeds: medium to small; ovoid; cheeks, round; wrinkled; keel, barely discernible; color, black; hilum ring, black.

(21) Blue Goose [Taylor, Gray Crowder, Speckled Crowder (Ga.)]

Plants: semi-erect; stems, medium fine; branches, medium fine; foliage, medium fine with large leaflets; drought resistance, good.

Flowers: light purple standards and wings; faded, almost white keel.

Pods: medium long (5 to 7"); borne clustered around center, even and above foliage; oval to rounded; nearly straight; seeds touching; straw color; late maturing.

Seeds: medium to large; ovoid to kidney; cheeks, rounded; smooth; keel, discernible; color, clay with numerous blue specks, arranged in patterns; hilum ring of dense blue specks.

(22) Blue Whips (Ga.)

See New Era

(23) Brabham

Plants: tall, erect; stems, medium to coarse; branches, medium to coarse; seldom vining; foliage, medium to coarse; drought resistance, good.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium long (6 to 8"); scattered; borne even and above foliage; round; tightly packed; straight; straw color; late maturing.

Seeds: small; rhomboid shaped; cheeks, round; smooth; keel, discernible; color; tan or clay, marbled with brown; hilum ring, orange.

(24) Brabham (WBJ Seed Co.)

See Victor

(25) **Brabham K737**

Plants: Semi-erect to tall bush; stems medium fine; branches medium fine; foliage, medium fine; drought resistance, good.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium short (4 to 6"); scattered; borne below foliage; round; smooth; straight; straw color; late maturing.

Seeds: small; rhomboid; cheeks, round smooth; keel, barely discernible; color, buff, marbled with brown; hilum ring, tan shading into brown.

(26) Brabham K892

Plants: tall, erect brush; stems, medium fine; branches, medium fine, short; foliage, medium fine, small; drought resistance, good.

Flowers: blue turning to purple at base of standards and wings; faded blue keel.

Pods: medium short (5"); scattered; borne even and above foliage; round; tightly packed; straight; straw colored late maturing.

Seeds: small; rhomboid shaped; cheeks, round; smooth; keel, barely discernible; color, buff, marbled with brown; hilum ring, brown.

(27) Brown Crowder (Early Sugar Crowder, Early Silver Crowder)

Plants: semi-erect, vining; stems, coarse; branches, coarse; foliage, medium fine; drought resistance, fair.

Flowers: purple standards and wings, yellow spots at base of standards; faded, nearly white keel.

Pods: medium (6 to 8") long, round, slightly curved, seeds crowded; sinuses deep; straw color; tough; held even and above foliage; medium early maturing.

Seeds: medium to large; very irregular shape; cheeks, rounded; smooth; keel, discernible to prominent; color, buff, clay or tan; hilum ring, brown.

(28) Brown Crowder SD4802NJ (Davis Pea, Browning, (Ala.))

Plants: prostrate; stems, medium coarse; branches, medium coarse; foliage, medium; drought resistance, poor.

Flowers: purple standards and wings, yellow spots at base of standards; faded keel.

Pods: medium long (6 to 8"); rounded; nearly straight; straw color deep sinuses; tough; seeds crowded; held above foliage; late maturing.

Seeds: medium to small; very irregular shape (Crowder); cheeks, rounded; smooth; keel often prominent; color, buff, turning to brown; hilum ring, brown, cut by short black line at base of hilum.

(29) Browneye

Plants: semi-prostrate, very vining; stems, coarse; branches, long, coarse; foliage, coarse, purplish-green color; drought resistance, poor.

Flowers: light blue standards with yellow bases; light blue wings and keel.

Pods: medium (5 to 7") short; semi-bunched; borne mostly above foliage; seeds not touching; semi-round; curved; purple; medium maturing.

Seeds: small; ovoid; cheeks, rounded; smooth to slightly wrinkled; keel, barely discernible; color, white with small, incomplete, brown eye; hilum ring, black.

(30) Browneye Purple Pod [Purple Hull (Ala.)]

Plants: prostrate; stems, coarse; branches, coarse; foliage, coarse, greenish-purple color; drought resistance, poor.

Flowers: very light blue standards with yellow spotted base; light blue wings; faded keel.

Pods: medium (6 to 8") long; bunched to scattered; borne even and below foliage; flat, seeds not touching; curved; purple; medium to late maturing.

Seeds: medium to large; ovate; cheeks, curved; heavily wrinkled; keel, discernible; color, white with small, incomplete, brown eye; hilum ring, dark brown.

(31) Browning (Ala.)

See Brown Crowder SD4802NJ

(32) Brown purple pod

Plants: prostrate; stems, coarse; branches, coarse; foliage, coarse; plant, purple tinged; drought resistance, poor.

Flowers: purple standards and wings; faded keel.

Pods: long (8 to 10"); flattened; slightly curved; purple color; held above foliage; late maturing.

Seeds: medium size; irregularly ovoid; cheeks, curved; mostly smooth; keel, prominent; seed color, buff; hilum ring, greenish-brown.

(33) Buff (Jackson 21)

Plants: erect to semi-erect stems, coarse; branches, many, coarse; foliage, coarse; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purple wings; faded keel.

Pods: medium (5 to 8") long; borne even and above foliage; flat; straight to slightly curved; seeds rarely touch; straw color; late maturing.

Seeds: small to medium; ovoid; cheeks, rounded; lightly wrinkled to smooth; keel, prominent; color, buff; hilum ring, brown.

(34) Bunch Purplehull

Plants: prostrate; stems, medium coarse; branches, long, medium coarse; foliage, medium; purplish-green color; drought resistance, poor.

Flowers: purple standards and wings with yellow base standards; faded keel.

Pods: medium (5 to 7") long; somewhat branched; borne mostly even and above foliage; flat; curved; purple color; medium maturing.

Seeds: medium to large; ovate; cheeks, slightly curved; wrinkled; keel, readily discernible; color, creamy white with small, complete, brown eye; hilum ring, dark brown.

(35) Calhoun

Plants: semi-erect to bush; stems, medium fine; branches, medium fine; foliage, fine; drought resistance, fair.

Flowers: light blue standards and wings; faded blue keel.

Pods: Medium long (4 to 7"); borne even and above foliage; rounded, crowder type; seeds closely crowded; nearly straight; straw color; medium maturing.

Seeds: medium to small; crowder type; cheeks, rounded; smooth; keel, barely discernible; color, buff, heavily speckled with blue; hilum ring, black.

(36) Calico

See Potomac

(37) Calva 3

Plants: prostrate; vining; stems, medium fine; branches many, medium fine; foliage fine; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; light purple wings; faded blue keel

Pods: medium long (6 to 8"); held even with foliage; slightly curved; flattened; brittle; straw color; early maturing.

Seeds: small ovoid; cheeks round; finely wrinkled; testa often split; keel, discernible; color, white with small, incomplete, horse shoe, black eye; hilum ring, black.

(38) Calva 6

Plants: prostrate; vining; stems, medium coarse; branches, medium; foliage, medium coarse; drought resistance, poor.

Flowers: white with yellow base standards.

Pods: medium long (6 to 7"); even and above foliage; curved; flattened; brittle; straw color; early maturing.

Seeds: large kidney shape; cheeks rounded; finely wrinkled; keel, prominently marked; color, white with medium size, complete, black eye; hilum ring, black.

(39) Catjang

Plants: upright; stems, fine; branches, mostly short, fine; foliage, fine; drought resistance, poor.

Flowers: purple standards and wings with yellow spots at base of standards; faded keel.

Pods: short (3 to 6"); borne even and below foliage; smooth round; straight; straw color; thin and brittle; very early maturing.

Seeds: very small, kidney shaped; cheeks, round; smooth; keel, barley discernible; color, light tan or buff; hilum ring, dark buff.

(40) Chinese Red (Chinese Red 9278NJ)

Plants: Tall brush; stems, fine; foliage, fine; drought resistance, fair to poor

Flowers: light blue standards and wings; faded blue keel.

Pods: short (3 to 6"); borne even and above foliage; round; deeply sinused; straight; brittle; straw color; very early maturing.

Seeds: very small; kidney; cheeks, round; smooth; keel, discernible; color, light red; hilum ring, reddish black.

(41) Chinese Red 9278NJ

See Chinese Red

(42) Clay (Clay Brown)

Plants: semi-erect; stems, medium fine; branches, many, medium fine; foliage, small, medium fine; drought resistance, medium to good.

Flowers: light blue standards with yellow spots at base; upper wings blue with purple bases; faded keel.

Pods: medium (5 to 7") short; borne even and below foliage; rounded, curved, seeds not toughing; straw color; late maturing.

Seeds: medium to small; kidney; cheeks, rounded; smooth; keel, discernible; color, buff or clay; hilum ring, brown.

(43) Clay Brown

See Clay

(44) Clay 1

Plants: prostrate; stems, medium coarse, vining; branches, coarse, long vines foliage, medium coarse; drought resistance, poor.

Flowers: light blue standards with yellow spots at base; upper wings blue to purple base, faded keel.

Pods: medium (5 to 8") long; rounded; curved; straw color; borne even and slightly above foliage; medium maturing.

Seeds: medium to small; ovoid; cheeks rounded; generally smooth; keel, discernible; color, buff; hilum ring, brown.

(45) Clay K713

Plants: semi-erect; stems, medium coarse; branches, medium, vining; foliage, medium; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; blue wings with purple bases; faded keel.

Pods: medium (5 to 7") long; nearly round; curved; straw color; borne even and above foliage; medium maturing.

Seeds: medium to small ovoid; cheeks rounded; mostly smooth; keel readily discernible; color, clay; hilum ring, brown.

(46) Columbia

Plants: prostrate to semi-prostrate; stems, medium fine; branches, medium fine; foliage, fine; drought resistance, poor.

Flowers: purple standards and wings; faded purple keels.

Pods: medium long (5 to 7"); scattered; borne below foliage; flattened; curved; seeds not touching; deeply sinused; late maturing.

Seeds: small; ovoid to kidney; cheeks, round wrinkled; keel discernible, color, cream, speckled with red and blue; eye, large, red speckled with blue; hilum ring, red.

(47) Columbia K713

Plants: semi-erect; stems, medium coarse; branches, medium coarse; foliage, medium; drought resistance, poor.

Flowers: purple standards and wings; faded purple keels.

Pods: Medium short (4 to 6"); scattered and borne below foliage; flattened, seeds not touching; curved; straw color; medium late maturing.

Seeds: small; ovoid; cheeks, rounded; wrinkled; keel, discernible; color, cream speckled with red and blue; eye, medium size, red speckled with blue; hilum ring, red.

(48) Conch.

See Sumptuous

(49) Cornfield English

See Cream Crowder.

(50) Cream (Cream Pea, Progressive White, Texas Cream)

Plants: semi-erect; stem, fine with medium short, fine branches; foliage, fine with thin leaves; drought resistance, poor.

Flowers: cream petals with yellow spots at base of standards.

Pods: medium (6"); flattened; borne even with foliage; straw color; early maturing.

Seeds: small; kidney; cheeks, rounded; finely wrinkled; keel, discernible, white; hilum ring, orange.

(51) Cream 12 (Texas)

See Cream 40 (Texas).

(52) Cream 40 (Texas)

Plants: semi-bush; stem, fine with short, fine, branches; foliage, fine with thin leaves; drought resistance, fair.

Flowers: cream wings and standards; yellow spots at base of standards.

Pods: medium (6 to 8") long; bunched; borne even and above foliage; rounded; slightly curved; straw color; brittle early maturing.

Seed: small; kidney shape; cheeks, rounded; slightly wrinkled; keel, barely discernible; color, white; hilum ring, orange.

(53) Cream Crowder (Cornfield English)

Plants: semi-prostrate to prostrate; stem, medium quick taper

to vine; branches, many, fine; foliage, small leaves, fine; drought resistance, poor to fair.

Flowers: white with light vellow standards.

Pods: small; round; wavy; short (4 to 5"); mostly straight; early maturing.

Seed: small; very irregular; crowder; cheeks, round; very finely wrinkled; keel, prominent color, cream to white; hilum ring, orange.

(54) Cream Long Pod

Plants: semi-prostrate; stem, fine; branches, fine; foliage, fine with medium size, thin leaves; drought resistance, poor.

Flowers: cream petals with yellow spots at base of standards.

Pods: small; long (8 to 12"); borne even and above foliage; flattened; slightly curved; straw color; early maturing.

Seeds: medium to small size; kidney shape; cheeks, rounded; finely wrinkled; keel discernible; testa often split; color, white; hilum ring, lemon.

(55) Cream Pea

See Cream

(56) Davis Pea

See Brown Crowder SD4802NJ

(57) Dixie Lee (Miss. 2)

Plants: prostrate; stems, medium; branches, medium, vining; foliage, medium; drought resistance, poor.

Flowers: purple wings and standards; faded purple keel.

Pods: medium (6 to 8") long; slightly flattened; slightly curved; straw color; early maturing.

Seeds: medium to large; semi-crowder; cheeks, rounded; smooth; keel, prominent; color, light tan; hilum ring, brown.

(58) Dixie Queen Browneye.

Piants: semi-upright; stems, medium fine; branches, medium fine; medium vining; foliage, medium fine; drought resistance, poor.

Flowers: white with lavender on wings and light green on standards; borne on long (9") peduncles.

Pods: medium long (5 to 7"), scattered even and above foliage; straw color; semi-round; seeds not touching; slightly curved; purple line of pod dehiscence; medium maturing.

Seeds: medium to small: ovoid; cheeks, round; almost smooth; keel, discernible; color, creamy white; eye, brown, small, incomplete; hilum ring, dark brown.

(59) Dixie Queen Browneye Purple Pod (Ga.)

Plants: prostrate; stems, medium coarse; branches, medium coarse; vining; foliage, medium; plant color, dark purplish-green.

Flowers: bluish white standards with yellow spots at base; light blue wings; faded keel.

Pods: medium (6 to 8") long; borne even and below foliage; scattered; slightly curved; flattened; purple color; seeds barely touch; medium maturing.

Seeds: medium size; ovoid; cheeks, curved; wrinkled; keel, discernible; seed color, white, with small, complete, brown eye; hilum ring, greenish black.

(60) Dixie Queen Purple Pod (Ala.)

Plants: prostrate; stems, medium coarse; branches, medium coarse, long; foliage, medium coarse; purplish-green; drought resistance, fair.

Flowers: white with purplish wings and standards; borne on short peduncles.

Pods: medium (6 to 8") long; scattered; even and above foliage; purple color; curved; medium maturing.

Seeds: small; semi-crowder; cheeks, rounded; wrinkled; keel, discernible color, white with small, incomplete, brown eye; hilum ring, brown.

(61) Early Buff.

Plants: semi-prostrate; stems, medium fine; branches, many, vining, medium fine; foliage, medium; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purple wings; faded keel.

Pods: medium long (5 to 6"); borne even with foliage; flat; straight to slightly curved; deeply sinused; straw color; early maturing.

Seeds: medium large; kidney shape; cheeks, rounded; mostly smooth; keel, discernible; color, buff; hilum ring, dark brown.

(62) Early Dixie Queen, Ala. (Early Dixie Queen, Ga.)

Plants: semi-prostrate stems, medium fine; branches, medium fine; foliage, fine; drought resistance, fair.

Flowers: white with yellow base, standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); flattened; seeds barely touch; curved; straw color; borne even and above foliage; medium early maturing.

Seeds: small; ovoid; cheeks, rounded; very wrinkled; keel, discernible; color, creamy white; eye very small, incomplete, light brown hilum ring, dark brown.

(63) Early Dixie Queen (Ga.)

See Early Dixie Queen (Ala.)

(64) Early Ramshorn Blackeye

Plants: semi-prostrate; vining; stem, medium coarse; many long, medium coarse branches; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); held above foliage; slightly curved; flattened; brittle; early maturing.

Seeds: large; kidney shape; cheeks, rounded; finely wrinkled; keel, readily discernible; color, white with medium to small, complete, black eye; hilum ring, black.

(65) Early Red

Plants: semi-prostrate; stems, medium fine; branches, medium fine; foliage, fine; drought resistance, good.

Flowers: blue standards and wings with purple at bases; faded blue keel.

Pods: medium long (6 to 8"); borne above foliage; flattened;

loosely filled; slightly curved; straw color; medium to early maturing.

Seeds: medium; ovoid; cheeks, rounded; mostly smooth; keel, discernible; color, dark purplish red; hilum ring, darker red.

(66) Early Red K736

Plants: prostrate to semi-prostrate; stems, medium fine; branches, medium fine; foliage, fine; drought resistance, fair.

Flowers: blue standards and wings with purple at bases; faded blue keels.

Pods: medium to long (5 to 9"); scattered; borne even and above foliage; oval to slightly flattened; seeds barely touching; tough; straw color; late maturing.

Seeds: medium to small; ovoid; cheeks, rounded; generally smooth; keel, barely discernible; color, dark red; hilum ring, darker red.

(67) Early Silver Crowder

See Brown Crowder

(68) Early Six Weeks (Ga.)

See Six Weeks (Ala.)

(69) Early Six Weeks Browneye

Plants: prostrate stems, medium to fine; branches, medium to fine, vining; foliage, fine; drought resistance, fair.

Flowers: white with yellow base standards; very light blue wings and keels.

Pods: medium short (4 to 7"); rounded; lightly sinused; curved; scattered, even and below foliage; straw color; medium maturing.

Seeds: very small; ovoid with slightly flattened ends; cheeks, round; wrinkled; keel, barely discernible; color, creamy white with very small, sometimes complete, light brown eye; hilum ring, dark brown.

(70) Early Sugar Crowder

See Brown Crowder

(71) Early Wilt Resistant Ramshorn Blackeye

Plants: prostrate; vining; stem and branches, medium; foliage, medium coarse; drought resistance, fair.

Flowers: white with yellow base standards.

Pods: medium long (6 to 9"); above foliage; flat; straw colored; slightly curved; medium early.

Seed: medium to large; kidney shape; cheeks rounded; finely wrinkled; keel, prominently marked; color, white; eye, medium size, black, complete; hilum ring, black.

(72) Extra Early Blackeye

Plants: semi-erect to erect; stems, medium coarse; branches, many, fine; foliage, medium fine; drought resistance, fair.

Flowers: white with yellow base standards; light blue wings; almost white keel.

Pods: medium long (6 to 9"); held above foliage; bunched; slightly curved, flattened; brittle; straw colored; early maturing.

Seeds: medium to small; ovoid; cheeks, rounded; heavily wrinkled; keel, readily discernible; color cream to white; eye, small, black, incomplete; hilum ring, black.

(73) Giant Wilt Resistant Ramshorn Blackeye.

Plants: prostrate; very vining; stems and branches, coarse and heavy; foliage, coarse; drought resistance, poor.

Flowers: Cream with yellow spots at base of standards.

Pods: long (7 to 10"); borne above foliage; flattened; oval; curved; straw color; medium early maturing.

Seeds: medium to small ovoid; cheeks, curved; smooth; keel, prominent; color white with medium, complete, black eye; hilum ring, black.

(74) Gray Crowder

See Blue Goose

(75) **Groit**

Plants: semi-erect to erect; stems, medium to coarse; branches, medium to coarse; foliage, medium; drought resistance, good.

Flowers: Purple standards and wings; yellow spots at base of standards; faded purple keel.

Pods: medium long (6 to 8"); borne even and above foliage; rounded; slightly curved; straw color; late maturing.

Seeds: medium to small; ovoid; cheeks, curved; smooth keel, discernible; color, tan to buff, marbled with brown, speckled with blue; hilum ring, orange with heavily speckled inner ring.

(76) Holstein

Plants: generally semi-erect; stem, medium size with many long fine branches; foliage, medium size, thick leaves; drought resistance, fair.

Flowers: white standards with yellow base; light blue wings; faded blue keel.

Pods: medium long (6 to 7"); borne even and above foliage; flattened; oval;; nearly straight with seeds barely touching; straw color; late maturing.

Seeds: medium size; ovoid shape; cheeks, rounded; wrinkled; keel, discernible; color, $\frac{1}{2}$ to $\frac{2}{3}$ black, $\frac{1}{2}$ to $\frac{1}{3}$ white; hilum ring, black.

(77) Honolulu

Plants: phostrate; stems, medium; branches, long; vining, medium; foliage, medium; drought resistance, poor.

Flowers: purple standards and wings; faded keel.

Pods: medium short (4 to 6"); flattened; curved; straw color; borne even with foliage; early maturing.

Seeds: small; ovoid; cheeks, rounded; wrinkled; keel, barely discernible; color, black; hilum ring, black.

(78) Iron

Plants: semi-erect mostly bush; stems, medium coarse; branches, many, medium coarse; foliage, medium; drought resistance, very good.

Flowers: blue standards with purple at base; blue wings; faded blue keel.

Pods: medium long (5 to 7"); borne even and below foliage;

nearly round; straight; straw color; seeds barely touching; late maturing.

Seeds: small; flat ends; nearly rhomboidal; cheeks, rounded; smooth; keel, nearly prominent; color, buff or clay hilum ring, tan.

(79) Iron K329

Plants: erect; stems, medium; branches, many medium fine; foliage, medium fine; drought resistance, very good.

Flowers: purple standards with yellow spots at base; purple wings; faded purple keel.

Pods: medium short (6"); borne even and below foliage; nearly round; slightly curved; seeds touching; straw color; late maturing but slightly earlier and more prolific than Iron.

Seeds: small; rhomboidal; cheeks, rounded; smooth; keel, prominent; color, tan to buff; hilum ring, orange brown.

(80) Iron K892

Plants: semi-upright stems coarse; branches, many, long, coarse; foliage, medium coarse; drought resistance, good.

Flowers: blue with purple at base of standards and wings; faded blue keel.

Pods: medium long (6 to 8"); borne even with foliage; rounded; straight; straw color; seeds touching; medium late maturing.

Seeds: medium size; rhomboidal to irregular shape; cheeks rounded; smooth; keel, prominent; color, buff; hilum ring, brownish yellow.

(81) Iron K894

Plants: erect; stems, coarse; branches, coarse; foliage, coarse; drought resistance, very good.

Flowers: blue with purple at base of standards and wings; faded blue keel.

Pods: medium long (6 to 8"); borne even and slightly above foliage; round; straight; straw color; late maturing.

Seeds: small; rhomboidal shape; cheeks, round; smooth; keel prominent; color, buff or clay; hilum ring, brown.

(82) Jackson 21

See Buff

(83) Lady

Plants: prostrate; stems, fine; branches, fine, vining; foliage, fine; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings and keel.

Pods: short (4 to 6"); borne even and below foliage; straight; slightly flattened; straw color; late maturing.

Seeds: small, rhomboidal; cheeks, round; finely wrinkled; keel, discernible; color, cream with small, incomplete, brown eye; hilum ring, brown.

(84) Lady [(Ala.) (Rice (Ala.)]

Plants; prostrate; stems, fine; branches, many long, fine; foliage; small, fine; drought resistance, good.

Flowers: white standards; light yellow wings and keel.

Pods: small; round; short (4 to 6"); borne above foliage; straight; straw color; medium maturing.

Seed: very small rhomboidal shape; cheeks, rounded; finely wrinkled; keel, discernible, color creamy white; hilum ring, orange.

(85) Lady Edible (Rice)

Plants: prostrate; stems, fine; branches, many, fine, long; foliage, fine; drought resistance, fair.

Flowers: white with yellow base standards.

Pods: short (3 to 5"); mostly straight; borne above foliage; golden straw color; brittle; early maturing.

Seeds: very small; almost round; cheeks, round; wrinkled; keel, discernible; color, white, hilum ring, orange.

(86) Large Blacks

Plants: semi-prostrate; vining; stems, medium course; branches, long, medium coarse; foliage, medium course; drought resistance, fair.

Flowers: purple standards and wings; yellow spots at base of standards; faded purple keel.

Pods: medium long (5 to 7"); oval; curved; yellowish straw color; borne scattered even and slightly above foliage; late maturing.

Seeds: medium to large; mostly ovoid; cheeks, round; wrinkled; keel, barely discernible; color, black; hilum ring, black.

(87) Large Virginia Blackeye

See Virginia Blackeye.

(88) Mississippi 2

See Dixie Lee.

(89) Mississippi 7

Plants: upright bush; stems, fine; branches, medium short, foliage, fine; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (5 to 7"); held even with foliage; bunched; slightly curved; slightly flattened; sinuses wide and deep; brittle; straw color; medium maturing.

Seeds: medium to small; ovoid; cheeks round; finely wrinkled; keel discernible; color creamy white; eye small, incomplete, black; hilum ring, black.

(90) Mississippi Crowder

Plants: semi-prostrate; spreading vines; stem, coarse; branches, coarse; foliage, medium, dark green; drought resistance, fair to good.

Flowers: purple standards and wings; yellow spots at base of standards; faded keel.

Pods: medium long (6 to 7"); round; slightly curved; straw color; seed crowded; scattered borne even with foliage medium early maturing.

Seeds: medium; crowder type; cheeks, rounded; smooth; keel, discernible; color, light tan.

(91) Monarch Blackeye (Ark.)

Plants: semi-vining; stems, medium size; branches size; foliage, medium fine; drought resistance, fair.

Flowers: light yellow.

Pods: medium long (6 to 8"); borne bunched even with foliage; rounded; neatly straight; straw color; very early.

Seeds: small; ovoid; cheeks rounded; finely wrinkled keel, discernible; color, cream; eye, small, incomplete; hilum ring, black.

(92) New Era [Blue Whips (Ga.), PI 152199]

Plants: tall bush to semi-prostrate vines stems, fine; branches, fine; foliage, fine; drought resistance, fair to good.

Flowers: purple standards and wings, yellow spots at base of standards; faded purple keel.

Pods: medium long (5 to 8"); borne even and above foliage; rounded; slightly curved; seeds compact; straw color; brittle; medium to late maturing.

Seeds: small, rhomboidal; cheeks rounded, smooth; keel barely discernible; color, tan to buff; heavily speckled with blue; hilum ring, densely crowded blue specks.

(93) Oklahoma Black

Plants: erect to semi-erict; stems, medium fine; branches, medium fine; foliage, medium fine, small; drought resistance, fair.

Flowers: purple standards and wings; keel, faded purple.

Pods: medium long (5 to 7"); nearly round; nearly straight; thin; brittle; straw color; borne even and above foliage very early maturing.

Seeds: small; ovoid; cheeks, round, mostly smooth; keel, barely discernible; color, shiny black; hilum ring, black.

(94) P. I. 145198 A

Plants: erect bush; stems, coarse; branches, coarse; foliage, coarse; drought resistance, fair to good.

Flowers: blue with purple at base of standards and wings; faded blue keel.

Pods: medium long (5 to 8"); scattered; borne even and just above foliage; rounded; seeds touching; nearly straight; straw color; late maturing.

Seeds: Small; rhomboid; cheeks, round; smooth; keel, barely discernible; color, buff, marbled with brown; hilum ring, orange to brown.

(95) P.I. 147077

Plants: prostrate stems medium fine; branches, vining, medium fine; foliage, medium; drought resistance, good.

Flowers: almost white with purplish standards; pale keels.

Pods: medium long (6 to 9"); borne on long (8 to 9") peduncles; even and above foliage; slightly curved; flattened; seeds not touching; straw color; thick; tough; medium maturing.

Seeds: medium; ovate cheeks, curved mostly wrinkled keel, readily discernible; color, cream with small eye of dense brown specks, thinning out at upper end; hilum ring, brown.

(96) **P.I. 148198B** (P.I. 154134)

Plants: semi-erect; stems, medium fine; branches, medium fine; foliage, medium fine; drought resistance, fair.

Flowers: white with yellow base standards.

Pods: medium long (4 to 6"); small; rounded; slightly curved; straw color; late maturing.

Seeds: small; ovoid; cheeks, round; finely wrinkled to smooth; keel, discernible; eye, small, incomplete, black; hilum ring, black.

(97) P.I. 152199

See New Era.

(98) P.I. 154134

See P.I. 148198B.

(99) PI 162699

Plants: prostrate; vining; stems, medium fine; branches, medium fine; foliage, medium fine; drought resistance, fair to good.

Flowers: white with yellow base standards.

Pods: medium long (5 to 8"); borne even and slightly above foliage; slightly rounded; slightly curved; brittle; straw color; early maturing.

Seeds: small; ovoid; cheeks, curved; finely wrinkled; keel, barley discernible color, white with small, incomplete, black eye; hilum ring, black.

(100) PI 162924

Plants: semi-prostrate, vining; stems, medium fine; branches, numerous, medium fine; foliage, medium fine; drought resistance, good.

Flowers: white with yellow standards.

Pods: medium long (6 to 8"); borne-even with foliage; flattened; slightly curved; straw color; medium maturing.

Seed: very small; ovoid; cheeks, rounded; smooth to sparsely wrinkled; keel, barley, discernible; color, white with very small black eye; hilum ring, not distinguishable.

(101) PI 162925

Plants: semi-erect; stems, medium fine; branches, medium fine; foliage, medium fine; semi-vining; drought resistance, good.

Flowers: light blue standards with yellow spots at base; purple wings and faded keels.

Pods: medium to long (5 to 9"); borne even with the foliage; oval; slightly curved; straw color; medium maturing.

Seeds: Medium to small; ovoid; cheeks curved, smooth; keel barely discernible color, buff marbled with brown; hilum ring, brown.

(102) Polecat

See Potomac.

(103) Potomac (Calico, Red-speckled Crowder, Red-spotted Crowder, Polecat)

Plants: semi-erect to prostrate; stem, medium size with medium long, fine side branches; foliage, medium size, medium thick leaves; drought resistance, fair.

Flowers: white standards with yellow base; light blue wings; faded blue keel.

Pods: short (4 to 5"); rounded; straight with seeds touching; borne even and above foliage.

Seeds: medium to small; ovoid to rhomboid; cheeks, round; wrinkled; keel, discernible; color, ½ to ½ red, ½ to ½ white, sometimes red spots in white area; hilum ring, red.

(104) Progressive White

See Cream.

(105) Puffy Pod (Ala.) [Puffy Pod (Ga.)]

Plants: semi-erect but vining; stems, medium coarse; branches, many, long, medium coarse; foliage, medium coarse; drought resistance, poor.

Flowers: blue with purple at base of standards and wings; faded keel.

Pods: medium long (6 to 9"); flattened; shallow sinuses; seeds loose in pods; pods borne above foliage; straw color; early maturing.

Seeds: large; ovoid to kidney; cheeks, slightly rounded to flat; keel, prominent; color, buff; hilum ring, dark brown with few brown specks around upper end.

(106) Puffy Pod (Ga.)

See Puffy Pod (Ala.)

(107) Purple Hull (Ala.)

See Browneye Purple Pod

(108) Purple Hull (Ga.)

Plants: prostrate; stems, medium; branches, medium, vining; foliage, medium; plant color, purple; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purple wings; faded keel.

Pods: medium long (5 to 8"); some scattered; borne even and below foliage; slightly curved; rounded; color, purple; early maturing.

Seeds: medium size; ovoid; cheeks rounded; coarsely wrinkled, hilum to keel; keel, prominent; seed color, creamy white; eye, small, complete, brown; hilum ring, dark brown.

(109) Purple Hull (R. N. Seed Co.)

Plants: prostrate; stems, medium fine; branches, many, long,

medium fine; foliage, medium fine, purplish-green; drought resistance, poor.

Flowers: light blue standards with yellow spots at base; purple wings; faded keel.

Pods: medium long (5 to 8"); flattened; seeds not touching; hull, medium thick, brittle; color, purple; early maturing.

Seeds: medium to large; ovate; cheeks curved; heavily wrinkled; keel, prominent; color, dull creamy white; eye, small, incomplete, brown; hilum ring, dark brown.

(110) Purple Hull (W. B. Johnston Seed Co.)

Plants: prostrate; stems, medium coarse; branches, medium coarse; foliage, medium coarse; purple tinged; drought resistance, poor.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium (6 to 8") long; borne even and below foliage; purple curved; flattened; seeds separate; early maturing.

Seeds: medium to small; ovate; cheeks round; finely wrinkled; keel medium prominent; cream colored; eye small, incomplete; hilum ring, very dark red.

(111) Purple Hull 40 (Tex.)

Plants: erect; stems, medium fine; branches, short, medium fine; foliage, fine; purple tinged; drought resistance, poor.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium short (5 to 8"); bunched; borne even and above foliage; slightly flattened; slightly curved; seeds touching; purple color; early maturing.

Seeds: medium to large; ovoid; cheeks, curved; wrinkled; keel, discernible; color, creamy white with small, incomplete, brown eye; hilum ring, dark brown.

(112) Purple Hull 530

Plants: prostrate; stems, medium coarse; branches; vining, medium; foliage, medium, purple tinged; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium short (6 to 8"); borne even and below foliage; many bunched around stem; curved; flattened; purple color; seeds barely touching; medium early maturing.

Seeds: medium size; ovoid; cheeks curved; medium fine wrinkles; keel, prominent; color, white with small, complete, brown eye; hilum ring, very dark brown.

(113) Purple Hull 3445 (Purple Hull 5036)

Plants: prostrate; stems, coarse; branches, coarse; foliage, coarse with purplish-green color; drought resistance, poor to fair.

Flowers: white with yellow base standards; light blue wings; faded keel.

Pods: medium long (6 to 8"); somewhat bunched; borne mostly even and below foliage; flattened; curved; seeds separate; color, purple; medium maturing.

Seeds: medium size; ovoid; cheeks, rounded; slightly wrinkled; keel, barely discernible; color, creamy white; eye, small, incomplete, light brown; hilum ring, dark brown.

(114) Purple Hull 5036

See Purple Hull 3445

(115) Purple Hull Crowder

Plants: prostrate; stems, coarse; branches, coarse, vining; foliage, coarse; drought resistance, good.

Flowers: purple standards and wings; yellow spots at base of standards; faded purple keels.

Pods: long (6 to 9"); borne even and above foliage; flattened;

(116) Red Hull Crowder (SC)

Plants: prostrate vines; stems, medium coarse; branches, long, medium coarse; foliage, medium coarse; drought resistance, poor. Flowers: purple standards and wings; faded purple keels.

Pods: medium to long (6 to 9"); scattered; borne even and above foliage; flattened; loosely filled; curved; reddish straw color; medium maturing.

Seeds: large; ovoid; cheeks, curved; smooth; keel, prominent; color, dark red; hilum ring, red.

(117) Red Ripper

Plants: prostrate; vining; stems, medium; branches, medium; foliage, medium fine; drought resistance, poor.

Flowers: blue standards and wings with purple base; faded, almost white keels.

Pods: medium long (5 to 7"); scattered; borne even and slightly above foliage; flattened; loosely filled; curved; thin and brittle; straw color; medium early maturing.

Seeds: medium; ovoid; checks, curved; mostly smooth; keel, fairly prominent; color light red; hilum ring, dark red.

(118) Red Ripper K711

Plants: semi-bush; stems, medium fine; branches, medium fine; foliage, fine; drought resistance, good.

Flowers: blue standards and wings with purple at base; faded blue keels.

Pods: medium long (6 to 8"); scattered; borne even and above foliage; flattened; loosely filled; curved; spotted straw color; medium to late maturing.

Seeds: medium; ovoid; cheeks, curved; generally smooth; keel, prominent; color, dark red; hilum ring, darker red, almost a red eye.

(119) Red-speckled Crowder

See Potomac.

(120) Red-spotted Crowder

See Potomac.

(121) Red Whippoorwill

Plants: prostrate; stems, coarse; branches, coarse, vining; foliage, coarse; drought resistance, fair.

Flowers: blue standards; blue wings; faded blue keel.

Pods: medium short (4 to 8"); scattered; borne below foliage; flat; curved; straw color; late maturing.

Seeds: medium size; ovoid; cheeks, curved; smooth; keel, barley discernible color, red, marbled with dark brown; hilum ring, brown.

(122) Rice.

See Lady Edible.

(123) Rice (Ala.)

See Lady (Ala.)

(124) Six Weeks (Ala.) [Early Six Weeks (Ga.)]

Plants: semi-erect; stems, medium fine; branches, medium fine, vining; foliage, medium fine; drought resistance, good.

Flowers: purple standards with yellow spots at base; purple wings; faded keel.

Pods: medium long (6 to 8"); scattered; round to oval, shallow sinuses; seeds separate; straw color; medium maturing.

Seeds: medium to small; ovoid to modified kidney; cheeks, rounded; smooth; keel, barley discernible; color, buff; hilum ring, brown.

(125) Speckled Crowder (Ga.)

See Blue Goose.

(126) Speckled Crowder

Plants: semi-prostrate to prostrate; stem, coarse with long coarse branches; foliage, coarse; leaves, large, thick; drought resistance, poor.

Flowers: purple standards and wings, yellow spots at base of standards; faded keel.

Pods: medium to short length; borne even and below foliage; scattered; rounded with seeds crowded; straw color; medium maturing.

Seeds: large; irregular shape; cheeks, rounded, keel, prominent; color, $\frac{1}{2}$ to $\frac{7}{8}$ buff, $\frac{1}{2}$ to $\frac{1}{8}$ white, buff area lightly speckled with black; hilum ring, black.

(127) Sumptuous (Conch)

Plants: prostrate; stem, medium; branches, medium long and coarse; foliage, medium coarse; drought resistance, fair.

Flowers: cream petals with yellow spots at base of standards.

Pods: medium long (4 to 7"); borne even and above foliage; nearly straight; flat; seeds separate; straw color; brittle.

Seed: medium size; kidney shape; cheeks, round; lightly wrinkled; keel, barely discernible; color, creamy white; hilum ring, orange.

(128) Suwanee

Plants: semi-erect; stems, medium fine; branches, long, medium fine; foliage, medium fine; drought resistance, fair to good

Flowers: purple standards and wings, yellow spots at base of standards; faded keel.

Pods: medium long (6 to 7"); flat; smooth; straight; scattered; borne even and above foliage straw color; medium maturing.

Seeds: medium to small; ovoid; cheeks, round; smooth; keel, semi-prominent; color, buff; hilum ring, brown.

(129) **Taylor**

See Blue Goose.

(130) Texas Cream

See Cream.

131 Victor (Brabham, W. B. Johnson Seed Co.)

Plants: semi-erect to tall vining; stems, coarse; branches, coarse; foliage, coarse; drought resistance, good.

Flowers: purple standards and wings with yellow spots at base of standards; faded purple keel.

Pods: medium long (5 to 7"); borne even and above foliage; round; straight; wavy; light straw color; late maturing.

Seeds: small; rhomboid; cheeks, round; smooth; keel, discernible as a ridge; color, light tan marbled with brown, heavily blue speckled; hilum ring, brown speckled with blue.

(132) Victor K798

Plants: erect, tall bush; stems, coarse; branches, coarse; foliage, coarse with large leaflets; drought resistance, good.

Flowers: purple standards with yellow spots at base; wings, blue to purple at base; faded purple keel.

Pods: Medium long (4 to 7"); bunched around stem; borne even and above foliage; round; straight; seeds toughing; straw color; medium to early maturing.

Seeds: small; rhomboid; cheeks, curved; smooth; keel, barely discernible; color, tan marbled with brown, speckled with blue; hilum ring, heavy blue specks over tan.

(133) Victor 18

Plants: semi-erect to erect; stems, medium; branches, medium; foliage, medium; drought resistance, good.

Flowers: purple standards and wings with yellow spots on base of standards; faded purple keel.

Pods: medium long (6 to 8"); borne even and slightly above foliage; scattered; round; compact; straight; straw color; late maturing.

Seeds: small rhomboid; cheeks, round; smooth; keel, discernible; color, slaty tan marbled with brown, speckled with blue; hilum ring, heavy blue specks.

(134) Vigna sesquipedalis

Plants: very prostrate, vining; stems, medium coarse; branches, medium coarse to fine; foliage, medium fine; drought resistance, poor.

Flowers: purple standards and wings; faded purple keels.

Pods: long (8 to 12"); scattered; borne above foliage; flat; loosely filled; thin; brittle; curved straw color early maturing.

Seeds: medium to small; kidney; cheeks, curved with few wrinkles keel, discernible; color, medium red; hilum ring, dark red line.

(135) Virginia Blackeye (Large Virginia Blackeye)

Plants: semi-upright; stems, medium; branches, many, fine, medium long; foliage, medium fine; drought resistance, fair.

Flowers: white with yellow base standards; light blue wings; almost white keels.

Pods: medium (5 to 7"); held even with foliage; scattered; slightly curved; flattened; brittle; straw color; late maturing.

Seeds: medium size; ovoid; cheeks, round; nearly smooth; keel, barely discernible; color, white with small, incomplete, black eye; hilum ring, black.

(136) Whippoorwill (Ala.)

Plants: erect vining; stems, medium fine; branches, medium fine vining; foliage, medium fine; drought resistance, fair to good.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium long (6 to 9"); scattered; flattened; slightly curved; loosely filled, borne even and below foliage; straw color; medium early.

Seeds: medium size; ovoid; cheeks, rounded; smooth; keel, discernible and sometimes prominent; color, tan marbled with brown; hilum ring, brown.

(137) Whippoorwill (NC)

Plants: Semi-prostrate; vining; stems, medium coarse; branches, medium coarse; foliage, medium coarse; drought resistance, poor.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium long (5 to 8"); scattered; rounded; smooth; slightly curved; medium thick; brittle; straw color; late maturing.

Seeds: small; irregular; ovate to rhomboid cheeks, round; smooth; keel, discernible; color, clay, browning with age, marbled with brown; hilum ring, lemon with brown inner line.

(138) Whippoorwill (Okla.)

Plants: semi-erect; stems, medium coarse; branches, medium coarse, sometimes long; foliage, medium coarse; drought resistance, fair to good.

Flowers: light blue standards with yellow spots at base; purple wings; faded blue keel.

Pods: medium long (6 to 8"); scattered; borne even and above foliage; slightly rounded; nearly straight; medium thick; brittle; straw color; late maturing.

Seed: medium size; ovate; cheeks, flat to slightly curved; smooth; keel, medium prominent; color, tan or buff with irregular spots of brown marbling; hilum ring, buff to brown inside.

(139) White Browneye (R. N. Seeds)

See White Browneye Crowder.

(140) White Browneye Crowder (White Browneye, R. N. Seeds)

Plants: prostrate to semi-prostrate; stems, medium to fine; branches, low, vining, medium fine; foliage, medium to fine; drought resistance, fair.

Flowers: light blue standards with yellow spots at base; purple wings; faded keel.

Pods: medium short (4 to 6") scattered; borne mostly even and slightly below foliage; round; mostly straight; seeds closely crowded; straw color thick-walled tough late maturing.

Seeds: large; irregular; distinctly crowder shape; cheeks, round; smooth to finely wrinkled; keel, discernible; color, creamy white with very small, incomplete, light brown eye; hilum ring, dark brown.

(141) Wilt Resistant Ramshorn Blackeye

Plants: prostrate; stems, medium; vining; branches, long, medium coarse; foliage, medium; drought resistance, fair.

Flowers: cream petals with yellow spots at base of standards.

Pods: medium long $(4\frac{1}{2}$ to 6''); even and above foliage; slightly curved; flattened; semi-bunched; straw color; medium maturing.

Seeds: medium size; kidney shape; cheeks, rounded; heavily but finely wrinkled; keel, prominent; eye, black; medium size; incomplete; hilum ring, black.

(142) Wonderful K716

Plants: plants, semi-erect; stems, medium coarse; branches many, vining, medium coarse; foliage, medium coarse; drought resistance, good.

Flowers: light blue standard with yellow spots at base; upper wings blue with lower part purple; faded keel.

Pods: medium long (6 to 8"); borne even with foliage; flat; curved; straw color; late maturing.

Seeds: medium size; kidney to ovate shape; cheeks, rounded to nearly flat; mostly smooth; color, buff; hilum ring, orange.

Varieties Classified as "Edible"

The varieties listed below are classified herein as "edible." Since edibility is often only a matter of custom or opinion, the following listing is at best only a general guide.

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Ala Browneye
Alabunch
Ala Crowder
Alalong (Ala.)
Arlington
Black Crowder
Blackeye (Blackeye (Calif. and Ga.))
Blackeye (Ala.)
Blackeye 5
Blackeye 7
Blackeye 72 (Okla.)
Blackeye 1239 (Okla.)
Blackeye 7711
Blackeye 8152
Blackeye 99439 N.J.
Blackeye White Crowder
Blue Goose (Taylor, Gray Crowder, Speckled Crowder (Ga.))
Brown Crowder (Early Sugar Crowder, Early Silver Crowder)
Brown Crowder SD 4802NJ (David Pea, Browning (Ala.))
Browneye
Browneye Purple Pod (Purple Hull (Ala.))
Bunch Purple Hull
Calhoun
Calva 3
Calva 6
Cream (Cream Pea, Progressive White, Texas Cream)
Cream 12 (Texas)
Cream 40 (Texas)
Cream Crowder(Cornfield English)
Cream Long Pod
Dixie Lee (Mississippi 2)
Dixie Queen Browneye
Dixie Queen Browneye Purple Pod (Ga.)
Dixie Queen Purple Pod (Ala.)
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Early Dixie Queen (Ala. and Ga.)

Early Ramshorn Blackeye

Early Six Weeks Browneye

Early Wilt Resistant Ranshorn Blackeye

Extra Early Blackeye

Giant Wilt Resistant Ramshorn Blackeye

Holstein*

Lady

Lady Edible (Rice)

Lady (Ala.) (Rice, (Ala.))

Mississippi Crowder

Mississippi 7

Monarch Blackeye (Ark.)

P.I. 147077

P.I. 148198B (P.I. 154134)

P.I. 162699

P.I. 162924

Potomac (Calico, Red-speckled Crowder, Red-spotted Crowder, Polecat)*

Purple Hull (Ga.)

Purple Hull (W. B. Johnson Seed and Grain Co.)

Purple Hull (R. N. Seed Co.)

Purple Hull 40 (Texas)

Purple Hull 530

Purple Hull 3445 (Purple Hull 5036)

Purple Hull Crowder

Speckled Crowder

Sumptuous (Conch)

Virginia Blackeye (Large Virginia Blackeye)

White Browneye Crowder (White Browneye (R. N. Seeds))

Wilt Resistant Ramshorn Blackeye

^{*} Varieties marked with an asterisk are classified both as field and as edible, and might be called an intermediate type.

Index of Descriptive Terms Used in Varietal Names

A number of descriptive terms such as "crowder" occur frequently In the names of cowpea varieties. The following index will be useful In locating the description of a variety in which one of these terms is a significant part of the varietal name but does not occur as the initial term. (Varietal names treated herein as synonyms are shown in parentheses.)

- Black(s) See also Large Blacks and Oklahoma Black.
- Blackeye See also Early Ramshorn Blackeye, Early Wilt Resistant Ramshorn Blackeye, Extra Early Blackeye, Giant Wilt Resistant Ramshorn Blackeye, (Large Virginia Blackeye), Monarch Blackeye, Virginia Blackeye, (Large Virginia Blackeye), and Wilt Resistant Ramshorn Blackeye.
- Browneye—See also Ala Browneye, Dixie Queen Browneye, Dixie Queen Browneye Purple Pod, Early Six Weeks Browneye, White Browneye, and White Browneye Crowder.
- Cream—See also Texas Cream.
- Crowder—See also Ala Crowder, Black Crowder, Blackeye White Crowder, Brown Crowder, Brown Crowder SD4802NJ, Cream Crowder, (Early Silver Crowder), (Early Sugar Crowder), (Gray Crowder), Mississippi Crowder, Red Hull Crowder, (Redspeckled Crowder), Red-spotted Crowder), Purple Hull Crowder, Brown Crowder, Brown Crowder SD4802NJ, Cream
- Dixie Queen—See also (Early Dixie Queen).
- Purple Pod—See also Browneye Purple Pod, Brown Purple Pod, Dixie Queen Browneye Purple Pod, Dixie Queen Purple Pod.
- Purple Hull—See also Bunch Purple Hull.
- Ramshorn—See also Early Ramshorn Blackeye, Early Wilt Resistant Ramshorn Blackeye, Giant Wilt Resistant Ramshorn Blackeye, and Wilt Resistant Ramshorn Blackeye.
- Red—See also Chinese Red, (Chinese Red 9278NJ), Early Red, and Early Red K736.
- White—See also Blackeye White Crowder, and (Porgressive White).
- Wilt Resistant—See also Early Wilt Resistant Ramshorn Blackeye, Giant Wilt Resistant Ramshorn Blackeye.

Terms Used to Describe Shapes

