

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

Exhibit C

**OBJECTIVE DESCRIPTION OF VARIETY
Okra (*Abelmoschus esculentus* (L.) Moench)**

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
ADDRESS (Street and No. or RD No., City, State, and Zip Code, Country)		FOR OFFICIAL USE ONLY
		PVPO NUMBER

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Complete the form as fully as possible. For quantitative characteristics (e.g., plant height) show typical means for the application variety and at least one check variety grown in the same trial(s). Give detailed analyzed trial data in Exhibit D, if necessary to substantiate novelty of your variety. If color comparisons are important in distinguishing your variety from another, use a standard, published color chart (e.g., Royal Horticultural Society, Munsell, U.S. Bureau of Standards), and specify the standard used. Use leading zeroes when necessary (0 9, 0 8 2).

Check Varieties: Use "Clemson Spineless" when possible; but, give comparisons of your variety with other varieties if data are available; specify names of checks.

1. MATURITY:

Heat units (growing degree days) to 50% bloom (at least one open flower on 50% of plants)

<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> Application Variety	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> Check Variety _____
---	---

Days to 50% Bloom:

<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> Application Variety	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> Check Variety _____
---	---

Application variety at (50% bloom):

Days Earlier Than: _____ (Check Variety)

Days Later Than: _____ (Check Variety)

Location(s) of Trial(s) _____

Date(s) Seeded _____

2. CHROMOSOME NUMBER:

=2n

3. PLANT:

Type: 1 = Dwarf (Dwarf Green Long Pid) 2 = Medium (Clemson Spineless)
3 = Tall (Green Velvet) 4 = Very Tall (Perkins Mammoth)

Branches at Basal Nodes: 1 = Absent 2 = Present

3. PLANT: (continued)

Plant Height (Mature Plant at End of Growing Season):

cm, Application Variety

cm, Check Variety _____

Application Variety:

cm Taller Than: _____

(Check Variety)

cm Shorter Than: _____

(Check Variety)

Number of Nodes on Main Stem:

Application Variety

Check Variety _____

Number of Lateral Branches:

Application Variety

Check Variety _____

Total Number of Fruiting Nodes (on Main Stem Plus Branches):

Application Variety

Check Variety _____

Node Number of First Bloom (Cotyledonary Node = 0):

Application Variety

Check Variety _____

4. STEM:

Color: 1 = Green 2 = Reddish or Purplish-green 3 = Deep Red

Spiny hairs: 1 = Absent 2 = Present

5. LEAF (Make observations on leaves at 7th through 11th nodes on plant):

Petiole Anthocyanin: 1 = Absent 2 = Present

Leaf-vein Anthocyanin: 1 = Absent 2 = Present

Leaf-blade Anthocyanin: 1 = Absent 2 = Present

Leaf lobing: 1 = Shallow (Emerald) 2 = Intermediate (Dwarf Green Long Pod) 3 = Deep (Clemson Spineless)

Spiny hairs: 1 = Absent 2 = Present

6. FLOWER:

Calyx color: 1 = Green 2 = Reddish

Color of basal petal spot on outside of petal: 1 = Red 2 = Yellow or Whitish

Petal Color: 1 = Yellow 2 = White

7. FRUIT:Pod color (at green harvest stage): 1 = White or Dream (White Velvet) 2 = Light Green (Louisiana Green Velvet)
3 = Medium to Dark Green (Emerald) 4 = Pink or Red (Red Okra)

Spiny Hairs on Pod: 1 = Absent 2 = Present

Pod Cross-section: 1 = Round 2 = Moderately Angled 3 = Sharply Angled

Fruiting Pedicel Texture: 1 = Flexible (Not Suitable for "Snap" Harvest) 2 = Brittle (Pod Easily Snapped off)

Mature, Dry Pod: 1 = Indehiscent 2 = Dehiscent

Mature Pod Length:

mm Application Variety

mm Check Variety _____

7. FRUIT: (continued)

Mature Pod Diameter:

mm Application Variety

mm Check Variety _____

Ascorbic Acid Content of Edible Pods (mg/100 g. fresh wt.):

mg Application Variety

mg Check Variety _____

mg Check Variety #2 _____

Vitamin A Content of Edible Pods (International Units/mg. fresh wt.):

I.U. Application Variety

I.U. Check Variety _____

I.U. Check Variety #2 _____

8. SEED:

Number per fruit:

Application Variety

Check Variety _____

Check Variety #2 _____

Seed Weight (g per 1,000 seeds):

g. Application Variety

g. Check Variety _____

g. Check Variety #2 _____

1 = Tight-fitting on Locule 2 = Loose-fitting in Locule

Hilum: 1 = Not Hairy 2 = Hairy

Oil Composition as % Dry Weight:

% Application Variety

% Check Variety _____

% Check Variety #2 _____

9. DISEASE REACTION: (code: 1 = Not Tested, 1 = Susceptible 2 = Resistant)

- | | |
|--|--|
| <input type="checkbox"/> Okra Yellow-vein Mosaic Virus | <input type="checkbox"/> Cercospora Blight (<i>C. spp.</i>) |
| <input type="checkbox"/> Powdery Mildew (<i>Erysiphe cichoreacaerum</i>) | <input type="checkbox"/> Fusarium Wilt (<i>F. oxysporum</i>) |
| <input type="checkbox"/> Verticillium Wilt (<i>V. albo-atrum</i>) | <input type="checkbox"/> Other _____ |

10. PEST REACTION: (code: 1 = Not Tested, 1 = Susceptible 2 = Resistant)

- | | |
|---|--|
| <input type="checkbox"/> Nematodes (<i>Meloidogyne incognita</i>) | <input type="checkbox"/> Aphid, Cotton (<i>Aphis gossypii</i>) |
| <input type="checkbox"/> Aphid, Melon (<i>Myzus persicae</i>) | <input type="checkbox"/> Blister Beetle (<i>Epicauta spp.</i>) |
| <input type="checkbox"/> Borer, Fruit (<i>Earias insulana</i>) | <input type="checkbox"/> Borer, Shoot (<i>Earias fabia</i>) |
| <input type="checkbox"/> Corn Earworm (<i>Heliothis zea</i>) | <input type="checkbox"/> Flea Beetles (Specify _____) |
| <input type="checkbox"/> Borer, Fruit (<i>Earias insulana</i>) | <input type="checkbox"/> Borer, Shoot (<i>Earias fabia</i>) |
| <input type="checkbox"/> Corn Earworm (<i>Heliothis zea</i>) | <input type="checkbox"/> Flea Beetles (Specify _____) |
| <input type="checkbox"/> Leaf Miner (<i>Liriomyza sativae</i>) | <input type="checkbox"/> Looper (<i>Trichoplusia ni</i>) |
| <input type="checkbox"/> Stinkbug (<i>Nezara viridula</i>) | <input type="checkbox"/> Other _____ |

11. ENVIRONMENTAL STRESS: (code: 0 = Not Tested, 1 = Susceptible, 2= Resistant)

- | | |
|---|-------------------------------|
| <input type="checkbox"/> Drought | <input type="checkbox"/> Heat |
| <input type="checkbox"/> Atmospheric Pollutants (Specify Types) _____ | |

References

1. Boswell, V.R. & L.B. Reed. 1962. Okra Culture. U. S. Department of Agriculture Leaflet No. 449. Washington D.C.
2. Erickson, H.T. & F.A.A. Couto. 1963. Inheritance of four plant and floral characters in okra (*Hibiscus Esculentus* L.) Proceedings of the American Society for Horticultural Science 83:605-608.
3. Sackett, C. 1975. Okra. Friut & Vegetable Facts & Pointers. United Fresh Fruit and Vegetable Assn., Washington, D.C., 7 pages.