No. 200400170

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

O & A Enterprises, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR MULTIPLYING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'OA-249'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this nineteenth day of September, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER: O & A Enterprises, Inc.
2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: OA-249
3. VARIETY NAME: OA-249
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*: P.O. Box 1440, Maricopa, AZ 85239
5. TELEPHONE *(include area code)*: (520) 381-2219
6. FAX *(include area code)*: (520) 568-2556

FOR OFFICIAL USE ONLY
PVPO NUMBER: 200400170
FILING DATE: MARCH 19, 2004

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*: Corporation
8. IF INCORPORATED, GIVE STATE OF INCORPORATION: DE
9. DATE OF INCORPORATION: April 10, 1998

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Dr. James M. Olvey
O & A Enterprises, Inc.
P.O. Box 1440
Maricopa, AZ 85239

FEES RECEIVED
FILING AND EXAMINATION FEES: $ 3652.00 DATE 03/19/04
CERTIFICATION FEE: $ 682.00 DATE 8/8/05

11. TELEPHONE *(Include area code)*: (520) 381-2219
12. FAX *(Include area code)*: (520) 568-2556
13. E-MAIL: pimarus@aol.com
14. CROP KIND *(Common Name)*: Cotton
16. FAMILY NAME *(Botanical)*: Malvaceae
15. GENUS AND SPECIES NAME OF CROP: Gossypium Hirsutum
17. IS THE VARIETY A FIRST GENERATION HYBRID? ☐ YES ☑ NO
18. DOES THE VARIETY CONTAIN ANY TRANSGENES? ***(OPTIONAL)***
☐ YES ☐ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)
a. ☑ Exhibit A. Origin and Breeding History of the Variety
b. ☑ Exhibit B. Statement of Distinctness
c. ☑ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☑ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☑ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*
21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☑ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
James M. Olvey			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Dr. James M. Olvey		~~Dr. James M. Olvey~~	
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
President	3-15-04	~~President~~	

(See reverse for instructions and information collection burden statement)

ST-470 (04-03) designed by the Plant Variety Protection Office using Word 2002.

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OA-249 1

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $3,652 ($432 filing fee and $3,220 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

20040170

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

April 8, 2003

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

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 1.4 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, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (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 USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit A

Origin and Breeding History
Acala OA-249

Selection criteria for Acala OA-249 focused on length of fiber and yarn strength. A high seed oil content was another trait in the selection of this variety.

Acala OA-249 originated from a cross between OA experimental lines 8962-35 and 8921-62. Acala OA-249 was tested in several areas in the San Joaquin Valley (SJV) and was approved by the SJVCB's Cotton Board in 2001. Acala OA-249 is well adapted to high verticillium wilt soils, has excellent heat tolerance and has excellent seedling vigor with high yields.

Stability of Acala OA-249 has been observed for 4 generations in which no variants have occurred. The variety is uniform and stable.

Breeding History

1989 (Cross)	8962-35 X 8921-62
1990	F1
1991	F2
1992	F3
1993	F4
1994	Individual Plant Selection by O&A
1995	Progeny Row
1996	Preliminary Strains
1997	Advanced Strains
1998	1st Year SJVCB Testing and Increase
1999	2nd Year SJVCB Testing and Increase
2000	3rd Year SJVCB Testing and Increase
2001	SJVCB approval
2003	Commercialization (limited quantity)

Exhibit B

Statement of Distinctness
Acala OA-249

Acala OA-249 is most similar to the current standard, Maxxa. SJVCB trial data from 1999 and 2000 variety trials indicate the following significant differences between Acala OA-249 and Maxxa. Data tables from San Joaquin Valley Cotton Board (SJVCB) trials for 1999 and 2000 indicating these differences are attached. These tables were obtained from published data in the following publications:

San Joaquin Variety Cotton Board, Acala Variety & Screening Test Results, 1999 season, Department of Agronomy and Range Science, University of California, Davis

2000 San Joaquin Valley Cotton On-Farm Variety Trial Program, University of California, Davis Agronomy and Range Science Department, published August 2001

All data tables presented were obtained from the above publications with the exception of some plant characteristics found in Exhibit C which were obtained from in-house measurements. Except for the tests conducted at the Shafter and West Side Field Station (WSFS), all trials are conducted on commercial fields. Plots in variety trials (1999, 2000) are tested at 8 locations which run the length of the field, usually 1/4 mile and are replicated 4 times. All statistical information is at the 5% level of probability.

For plant characteristics, Acala OA-249 has a significantly higher height/node ratio than Maxxa (2000, Exhibit 1). Acala OA-249 seed composition grades are significantly higher (2000, Exhibit 2), %NH is significantly lower (2000, Exhibit 3) and % oil is significantly higher (2000, Exhibit 3) than Maxxa.

In fiber characteristics, Acala OA-249 is significantly longer than Maxxa (1999, Exhibit 4) and has significantly greater yarn strength (lbs., 22's)(1999, Exhibit 5).

Additional exhibits (6 through 14) are attached which support data entered in Exhibit C (Objective Description of Variety).

DRAFT

EXHIBIT C
(COTTON)

U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 500
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
O & A Enterprises, Inc.	OA-249	OA-249

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP CODE

P.O. Box 1440
Maricopa, AZ 85239

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PVPO NUMBER
20040170

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. Maxxa Variety 2. _____ Variety 3 _____

* 1. SPECIES:

X *G. hirsutum* L. _____ *G. barbadense* L.

* 2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)

NA Eastern	NA Delta	NA Central	NA Blacklands
NA Plains	NA Western	NA Arizona	A San Joaquin
Other (Specify): _____			

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Plant Habit: Spreading, Intermediate, Compact	Intermediate	Intermediate		
Foliage: Sparse, Intermediate, Dense	Intermediate	Intermediate		
Stem Lodging: Lodging, Intermediate, Erect	Erect	Erect		
Fruiting Branch: Clustered, Short, Normal	Normal	Normal		
Growth: Determinate, Intermediate, Indeterminate	Intermediate	Intermediate		
Leaf Color: Greenish yellow, Light green, Medium green, Dark green	Green	Green		

3. GENERAL: (continued)

Boll Shape: Length less than width, Length equal to width, Length more than width	Length more than width	Length more than width
Boll Breadth: Broadest at base, Broadest at middle	Broadest at middle	Broadest at middle

* 4. MATURITY: (50% Open Bolls; Preferred method; Describe method if different method was used.)

Estimated % open Oct. 1	63	63

5. PLANT:

Cm to 1st Fruiting Branch: (from cotyledonary node)	17	18
No. of Nodes to 1st Fruiting Branch: (excluding cotyledonary node)	7	6
Mature Plant Height in: (from cotyledonary node to terminal)	42	40

*6. **LEAF:** Upper most, fully expanded leaf.

Type: Normal, sub Okra, Okra, Super Okra	Normal	Normal
Pubescence: Absent, Sparse, Medium, Dense **OR** Trichomes/cm2 (Bottom surface excluding veins)	Medium	Medium
Nectaries: Present or Absent	Present	Present

*7. STEM PUBESCENCE:

Glabrous, Intermediate, Hairy	Intermediate	Intermediate

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:	Normal	Normal
Stem:	Normal	Normal
Calyx Lobe: (normal is absent)		

*9. FLOWER:

Petals: Cream, Yellow	Cream	Cream
Pollen: Cream, Yellow	Cream	Cream
Petal Spot: Present, Absent	Absent	Absent

*10. SEED:

Seed Index: (g/100 seed, fuzzy basis)	12.6	12.1
Lint Index: (g lint/100 seeds)	8.0	8.3

*11. BOLL:

Lint Percent: ___X___Picked _____Pulled	34.6	41.2
OR		
Gin Turnout: ___X___Picked _____Stripped	34.5	35.9
Number of Seeds per Boll		
Grams Seed Cotton per Boll	7.1	6.9
Number of Locules per Boll	4-5	4-5
Boll Type: (Stormproof, Storm Resistant, Open)	Open	Open

12. FIBER PROPERTIES:

Specify Method (HVI or other): _____HVI_____

* **Length:** (inches, 2.5% SL)	1.17**	1.15
* **Uniformity:** (%)	82.9	83.0
* **Strength,** T1 (g/tex)	34.0	33.5
* **Elongation,** E1 (%)	6.1	6.0
* **Micronaire:**	4.14	4.04
Fineness (Source: AFIS)	158	159
Yarn Tenacity: (cN/tex, 27 tex)		
Yarn Strength: (lbs. 22's)	141**	137

** means significant at 0.05% level

13. DISEASES: (NT = Not Tested, S = Susceptible. MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT___*Alternaria macrospora*

NT___Anthracnose

NT___Ascochyta Blight

NT___Bacterial Blight (Race 1)

NT___Bacterial Blight (Race 2)

NT___Bacterial Blight (Race ____)

NT___Diplodia Boll Rot

_____Other (specify) _____

NT___Fusarium Wilt

NT___Phymatotrichum Root Rot

NT___*Pythium* (specify species)

NT___*Rhizoctonia solani*

NT___Southwestern Cotton Rust

NT___Thielayiopsis basicola

_R__Verticillium Wilt

14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant

NT Root-Knot Nematode

NT Boll Weevil

NT Bollworm

NT Cotton Aphid

NT Cotton Fleahopper

NT Cotton Leafworm

NT Cutworm (specify species): _____

NT Fall Armyworm

_____ Other (specify): _____

NT Reniform Nematode

NT Grasshopper (specify species): _____

NT Lygus (specify species): _____

NT Pink Bollworm

NT Spider Mite (specify species): _____

NT Stink Bug (specify species): _____

NT Thrips (specify species): _____

NT Tobacco Bud Worm

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

SJVCB 2000

Exhibit 1

200400170

Table 10. Acala late season plant mapping, 2000.

No.	Variety	Height (inches) 1	HNR 2	Node (number) 3	Number of 1st position bolls 4	Number of 2nd position bolls 5	Number of Open bolls 6
1.	PHY-72	41.6 c	1.95 cde	21.6	7.0	2.0	5.2 def
2.	OA-249	41.7 c	1.99 cd	21.2	6.8	1.8	5.7 bcd
3.	C-181	40.6 cd	1.89 efg	21.8	7.1	2.4	6.1 ab
4.	**Maxxa**	**40.6 cd**	**1.89 efg**	**21.7**	**6.6**	**2.5**	**5.6 bcde**
5.	PHY-78	43.9 a	2.06 ab	21.5	7.3	2.5	6.4 a
6.	C-192	39.8 d	1.85 g	21.7	7.2	2.2	5.5 bcde
7.	OA-258	41.7 bc	2.00 bcd	21.1	6.6	1.8	5.9 abc
8.	OA-260	39.4 d	1.86 fg	21.4	6.6	2.0	5.4 cdef
9.	GTO	42.9 ab	2.02 bc	21.5	6.5	2.3	4.4 g
10.	GC-9856	39.7 d	1.89 efg	21.3	6.9	2.4	5.7 bcd
11.	GC-9855	41.6 c	1.94 de	21.5	6.9	2.1	4.9 efg
12.	PHY-85	39.6 d	1.89 efg	21.2	6.6	2.0	4.4 g
13.	C-191	41.3 c	1.92 def	21.8	6.7	2.6	5.1 def
14.	BR-9904	41.2 c	1.93 def	21.6	6.8	2.5	4.8 fg
15.	GC-9754	44.1 a	2.12 a	21.0	6.7	2.2	5.7 bcd
Mean ±SD		41.3 ±6.3	1.95 ±0.34	21.5 ±2.7	6.8 ±2.5	2.2 ±2.0	5.4 ±3.7
LSD (0.05)		1.2	0.1	0.6	0.6	0.4	0.6
CV		11.5	14.4	10.3	31.6	77.0	46.4

[+]Fiber parameter (within columns) followed by the same letter are not significantly different using the F-protected LSD test ($P \leq 0.05$).

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SJVCB 2000

Exhibit 2

200400170

Table 18. Acala Woodson Tenant seed quality data, 2000

No.	Variety	F.M. (%) 1	FFA (%) 2	Gossypol (%) 3	Grade 4
1.	PHY-72	0.42 b	0.18	0.75 bc	113.7 efgh
2.	OA-249	0.32 b	0.18	0.72 c	118.4 ab
3.	C-181	0.33 b	0.18	0.81 b	111.4 fghi
4.	**Maxxa**	**0.43 b**	**0.17**	**0.75 bc**	**114.8 cdef**
5.	PHY-78	0.83 a	0.17	0.79 bc	111.3 ghi
6.	C-192	0.28 b	0.13	0.75 bc	118.1 abc
7.	OA-258	0.42 b	0.22	0.71 c	110.5 hi
8.	OA-260	0.27 b	0.13	0.81 b	116.5 bcde
9.	GTO	0.32 b	0.17	0.76 bc	115.7 bcde
10.	GC-9856	0.27 b	0.12	0.79 bc	115.4 bcde
11.	GC-9855	0.22 b	0.18	0.74 bc	120.2 a
12.	PHY-85	0.25 b	0.15	0.54 d	114.5 defg
13.	C-191	0.48 b	0.15	0.80 bc	116.8 abcde
14.	BR-9904	0.48 b	0.15	0.97 a	109.2 i
15.	GC-9754	0.35 b	0.18	0.79 bc	117.2 abcd
Mean ±SD		0.38±0.62	0.16±0.06	0.77±0.12	114.9±4.3
LSD (0.05)		0.30	0.07	0.09	3.5
CV		68.78	34.26	9.90	2.6

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Exhibit 3

SJVCB 2000

200400170

Table 18. Acala Woodson Tenant (continued).

No.	Variety	Lint Residual (%) 5	Moisture Content (%) 6	NH_3 (%) 7	Oil (%) 8
1.	PHY-72	8.87 bcde	5.65 c	4.39 f	20.6 bcde
2.	OA-249	8.63 cdef	5.95 bc	4.66 de	21.4 ab
3.	C-181	10.88 a	5.95 bc	4.76 bcd	19.5 gh
4.	**Maxxa**	**9.69 abc**	**6.05 bc**	**4.87 abc**	**20.2 defg**
5.	PHY-78	8.18 def	5.87 bc	4.43 f	19.9efgh
6.	C-192	8.11 ef	5.97 bc	4.79 bcd	21.1 abc
7.	OA-258	9.35 bcde	5.68 c	4.53 ef	19.6 fgh
8.	OA-260	9.43 bcde	5.75 bc	4.76 bcd	20.7bcd
9.	GTO	8.87 bcde	7.82 a	5.00 a	20.2 defg
10.	GC-9856	9.48 bcd	6.13 bc	4.84 abcd	20.4 cde
11.	GC-9855	8.88 bcde	6.07 bc	4.82 abcd	21.6 a
12.	PHY-85	7.41 f	5.72 bc	4.74 cd	20.3def
13.	C-191	8.76 cde	6.58 bc	4.92 ab	20.6 bcde
14.	BR-9904	10.18 ab	6.65 b	4.49 ef	19.3 h
15.	GC-9754	8.76 cdef	5.80 bc	4.53 ef	21.3 ab
Mean ±SD		9.03±1.26	6.11±0.97	4.70±0.25	20.4±1.0
LSD (0.05)		1.4	0.93	0.18	0.8
CV		12.83	13.13	3.29	3.4

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SJVCB VARIETY TEST - 1999
POUNDS LINT PER ACRE

	BUTTON WILLOW	WASCO	WAU KENA	COR* CORAN	WSFS	CAN TUA	CHOW* CHILLA	LOS* BANOS	MEAN
MAXXA	1671	1058	1603	1436	1740	1287	1212	1814	1478
GTO	1816	1102	1670	1571	1833	1209	1081	1764	1506
C-175	1640	1118	1578	1479	1643	1270	1083	1669	1435
C-176	1735	1185	1579	1505	1778	1422	1342	1939	1561
C-181	1714	1125	1460	1448	1739	1303	1305	1856	1494
DP 6100RR	1771	1022	1459	1345	1440	1197	1148	1444	1353
GC-9642	1699	1177	1634	1468	1834	1244	1289	1905	1531
GC-9643	1659	1022	1579	1407	1715	1299	1234	1770	1461
GC-9645	1641	957	1330	1390	1721	1199	1073	1687	1375
GC-9646	1550	1060	1538	1279	1613	1159	1093	1643	1367
OA-247	1719	1089	1392	1366	1481	1341	1089	1602	1385
OA-249	1738	1160	1454	1387	1802	1315	1296	1751	1488
PHY 61	1746	832	1289	1469	1604	1152	1104	1683	1360
PHY 72	1857	1180	1627	1574	1953	1394	1468	1880	1617
LSD .05	83	118	67	92	98	130	120	59	77
%CV	3.4	7.7	3.1	4.5	4.0	7.2	7.0	2.4	4.7

*30" ROWS.

Exhibit 4

FIBER AND MIN SPIN SUMMARY

	FIBER QUALITY - HVI				YARN STRENGTH
	LENGTH	UNIF	STR	MIC	22'S YTEN
MAXXA	1.15	83.0	33.5	3.94	137
GTO	1.18	83.2	34.0	4.14	136
C-175	1.16	82.8	35.5	3.85	143
C-176	1.16	82.8	32.8	3.96	135
C-181	1.15	82.5	33.2	4.04	130
DP 6100RR	1.16	83.3	33.0	3.98	130
GC-9642	1.16	83.3	34.0	4.08	139
GC-9643	1.16	83.0	33.9	4.02	139
GC-9645	1.15	82.9	31.9	3.97	134
GC-9646	1.15	83.0	34.8	3.91	143
OA-247	1.22	83.4	35.3	3.68	152
OA-249	1.17	82.9	34.0	4.09	141
PHY 61	1.14	83.5	32.8	3.84	135
PHY 72	1.19	82.4	33.4	3.92	134
LSD .05	0.01	0.5	0.9	0.12	4
%CV	1.5	0.8	3.1	3.7	2.9

YTEN (YARN TENACITY)

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Exhibit 5

200400170

SJVCB ACALA VARIETY TEST - 1999

CARDED 22'S YARN TENACITY - STARLAB

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	143	138	134	138	133	139	138	133	137
GTO	139	141	138	136	133	134	134	134	136
C-175	151	140	147	141	137	142	145	141	143
C-176	138	130	145	137	132	132	134	133	135
C-181	138	124	129	127	126	135	128	131	130
DP 6100RR	130	125	131	128	127	130	130	135	130
GC-9642	142	140	144	145	134	135	136	138	139
GC-9643	137	140	142	142	139	139	138	136	139
GC-9645	141	136	131	134	129	131	137	134	134
GC-9646	151	146	149	144	139	137	137	140	143
OA-247	150	146	155	149	155	157	146	153	152
OA-249	142	141	148	141	133	148	139	138	141
PHY 61	144	133	137	136	130	142	130	130	135
PHY 72	131	130	136	140	128	137	126	139	134
AVERAGE	141	136	140	138	134	138	136	137	138
LSD .05	10	6	11	8	6	8	11	7	4
%CV	3.4	2.0	3.5	2.6	2.1	2.7	3.8	2.5	2.9

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200400170 exhibit 6

SJVCB VARIETY TEST - 1999
WILT RATING - MID SEPT

	BUTTON WILLOW	WAU KENA	COR CORAN	WSFS	CANTUA CREEK	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	28	29	23	24	16	16	24	23
GTO	24	26	23	19	18	16	20	21
C-175	26	25	25	19	20	16	23	22
C-176	32	31	30	30	20	18	21	26
C-181	29	40	38	35	23	23	34	32
DP 6100RR	25	40	39	36	33	20	25	31
GC-9642	31	26	21	20	18	21	21	23
GC-9643	28	26	29	21	20	19	28	24
GC-9645	42	46	39	28	21	21	33	33
GC-9646	39	33	40	20	16	20	28	28
OA-247	28	35	30	29	20	25	21	27
OA-249	26	44	34	33	23	15	36	30
PHY 61	45	65	53	36	25	24	30	40
PHY 72	39	46	43	33	23	21	24	33
AVERAGE	32	37	33	27	21	20	26	28
LSD .05	7	5	7	6	7	6	8	5
%CV	16.6	9.4	13.8	14.4	24.4	21.7	21.3	16.7

No foliar symptoms at 10 to complete defoliation at 100
20-30 light 40-50 intermediate >50 severe

MATURITY RATINGS*

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CANTUA CREEK	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	81	51	79	92	48	61	28	63	63
GTO	77	25	71	82	49	48	20	58	54
C-175	83	33	74	89	43	60	28	53	58
C-176	85	34	78	93	48	64	31	56	61
C-181	84	55	80	93	54	65	40	70	68
DP 6100RR	78	21	71	91	40	49	24	36	51
GC-9642	86	36	79	89	55	59	38	55	62
GC-9643	86	61	83	92	53	55	39	68	67
GC-9645	84	43	81	91	55	60	29	64	63
GC-9646	86	48	76	91	63	63	23	50	62
OA-247	82	27	70	90	35	55	18	44	53
OA-249	85	38	80	95	51	61	29	66	63
PHY 61	91	27	96	96	44	68	20	64	63
PHY 72	89	27	85	96	51	55	50	70	65
AVERAGE	84	37	79	91	49	59	30	58	61
LSD .05	6	24	7	NS	8	NS	17	14	6
%CV	5.0	44.9	6.4	5.5	10.7	21.6	39.1	16.3	16.0

*Estimated % open Oct 1.

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Exhibit 7

SJVCB VARIETY TEST - 1999
POST HARVEST PLANT HEIGHT - INCHES

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	32	40	37	39	46	38	46	43	40
GTO	34	46	40	47	45	42	54	44	44
C-175	33	44	39	39	50	39	48	46	42
C-176	33	39	38	37	46	39	45	43	40
C-181	31	37	35	41	45	38	48	44	40
DP 6100RR	37	50	40	50	56	46	48	52	47
GC-9642	30	43	37	34	43	38	43	41	39
GC-9643	31	34	36	44	44	41	46	44	40
GC-9645	31	36	33	42	44	35	45	40	38
GC-9646	29	38	36	34	38	37	48	42	38
OA-247	36	49	39	41	54	42	58	52	46
OA-249	33	46	35	39	48	41	53	45	42
PHY 61	32	50	35	41	51	39	58	47	44
PHY 72	33	49	34	41	48	39	46	44	42
AVERAGE	33	43	37	41	47	40	49	45	42
LSD .05	4	9	3	7	3	5	8	3	3
%CV	7.7	15.3	5.4	12.7	4.1	8.2	11.7	5.0	9.7

SJVCB VARIETY TEST - 1999
GROWTH CHARACTERISTICS-PLANT MAPPING

					No. of FB's		% Retention			
	Height	Total nodes	Ht/N ratio	Veg. nodes	Total	95% zone	FB 1-5	95% zone	% in pos.1	% open bolls
MAXXA	37.7	20.9	1.80	5.0	15.9	10.7	66	60	71	6
GTO	40.6	20.8	1.95	5.1	15.7	10.8	63	61	61	4
C-175	39.9	21.2	1.88	5.9	15.3	10.1	65	62	69	2
C-176	38.5	20.7	1.85	5.0	15.7	10.2	69	65	63	5
C-181	38.7	21.2	1.83	5.2	16.0	10.5	70	66	68	6
DP 6100RR	43.8	23.3	1.86	6.0	17.3	11.6	63	64	71	1
GC-9642	37.4	20.8	1.79	4.8	16.0	10.7	70	67	63	7
GC-9643	38.1	21.1	1.80	5.1	16.0	10.8	61	59	66	7
GC-9645	36.4	20.5	1.77	5.1	15.4	10.3	66	63	68	5
GC-9646	37.6	20.1	1.86	5.1	15.0	10.3	69	65	69	4
OA-247	44.0	22.2	1.97	5.9	16.3	11.3	62	64	68	3
OA-249	40.5	20.9	1.93	5.1	15.7	10.6	66	63	69	6
PHY 61	41.8	21.9	1.90	5.6	16.3	10.9	61	61	69	5
PHY 72	39.7	21.4	1.85	5.6	15.8	10.6	67	65	65	5
AVERAGE	39.6	21.2	1.86	5.3	15.9	10.7	65	63	67	5
LSD .05	2.4	0.6	0.08	0.3	0.6	0.6	NS	5	5	2
%CV	9.4	5.8	6.6	8.3	7.5	11.5	18.9	15.2	14.7	78.3

FB=Fruiting branch
95% zone=No. of FB's containing 95% of the bolls

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Exhibit 8

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SJVCB 2000

Table 16. Acala 25 boll sample data, 2000.

No.	Variety	Lint weight 1	Sample weight 2	Seed index 3	Seed weight 4
1.	PHY-72	58.9 f	142.9 e	10.6 e	82.5f
2.	OA-249	71.2 abc	174.3 a	12.6 ab	101.5a
3.	C-181	68.0 cd	164.8 abc	12.6 ab	95.0abcd
4.	**Maxxa**	**67.4 cde**	**159.0 bcd**	**12.1 bc**	**90.1def**
5.	PHY-78	61.8 ef	151.1 cde	10.7 e	87.7 def
6.	C-192	72.0 abc	169.1 ab	12.8 a	95.4 abcd
7.	OA-258	71.1 abc	173.5 a	12.6 ab	100.8 ab
8.	OA-260	71.1 abc	163.3 abc	12.2 bc	90.5 cde
9.	GTO	76.8 a	168.2 ab	12.2 bc	90.1 def
10.	GC-9856	70.7 abc	163.5 abc	12.1 bc	91.3 cde
11.	GC-9855	69.8 bc	166.0 ab	12.2 bc	94.7 abcd
12.	PHY-85	74.8 ab	174.5 a	11.9 c	98.3 abc
13.	C-191	70.4 bc	160.8 abc	12.2 bc	88.6 def
14.	BR-9904	59.9 f	146.4 de	11.3 d	85.1 ef
15.	GC-9754	63.0 def	158.2 bcd	12.1 bc	93.1 bcd
Mean ±SD		68.5 ±10.7	162.4 ±24.2	12.0 ±1.1	92.3 ±14.0
LSD (0.05)		6.1	14.1	0.5	8.0
CV		11.9	11.6	6.0	11.6

[1]Fiber parameter (within columns) followed by the same letter are not significantly different using the F-protected LSD test ($P \leq 0.05$).

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SJVCB ACALA VARIETY TEST - 1999

LINT PERCENT

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	42.3	41.9	41.7	43.7	43.1	45.5	43.8	42.2	43.0
GTO	45.6	43.4	44.9	48.1	47.2	46.3	46.5	45.2	45.9
C-175	41.3	40.9	39.4	42.1	44.1	42.5	43.3	41.7	41.9
C-176	44.4	44.5	42.4	45.1	44.6	44.2	44.8	44.8	44.4
C-181	42.5	42.7	41.3	40.2	44.7	43.2	43.8	44.3	42.8
DP 6100RR	38.2	38.7	38.5	41.5	39.6	40.4	41.1	41.5	39.9
GC-9642	44.4	43.3	43.4	41.5	45.2	43.9	46.6	45.6	44.2
GC-9643	42.5	41.2	40.2	43.2	44.8	44.0	44.7	43.6	43.0
GC-9645	42.3	38.9	41.5	41.4	42.5	42.2	43.4	45.4	42.2
GC-9646	38.5	40.3	41.5	39.0	41.8	41.6	43.3	42.3	41.1
OA-247	38.9	38.7	39.8	39.2	41.5	39.0	40.6	39.1	39.6
OA-249	41.1	39.4	39.2	42.5	42.2	41.5	41.8	41.7	41.2
PHY 61	38.9	36.7	36.8	38.4	40.0	40.5	39.6	39.7	38.8
PHY 72	41.8	40.1	40.3	41.5	43.6	41.7	42.5	43.0	41.8
AVERAGE	41.6	40.7	40.8	42.0	43.2	42.6	43.3	42.9	42.1
LSD .05	1.7	2.0	2.2	4.5	3.0	3.0	2.6	3.8	1.0
%CV	1.9	2.2	2.5	5.0	3.2	3.2	2.8	4.1	3.3

GIN TURNOUT - FIRST PICK

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	36.0	36.6	33.8	35.7	37.2	36.4	36.4	35.5	35.9
GTO	39.0	39.1	37.0	39.2	40.8	39.4	38.8	38.6	39.0
C-175	34.1	35.2	32.3	33.8	35.8	35.6	34.1	34.3	34.4
C-176	37.4	37.8	35.1	36.7	38.7	37.6	37.0	37.6	37.2
C-181	35.2	35.7	33.2	34.7	37.1	35.9	35.3	35.4	35.3
DP 6100RR	33.0	33.0	31.8	32.7	34.9	33.9	33.7	32.9	33.2
GC-9642	37.1	37.5	34.6	36.7	38.4	37.8	36.6	36.5	36.9
GC-9643	35.9	36.2	34.1	35.3	37.5	36.1	35.8	35.6	35.8
GC-9645	34.6	35.1	32.2	34.2	36.8	35.7	35.9	34.9	34.9
GC-9646	33.9	34.4	32.1	33.8	36.1	35.0	34.8	34.8	34.4
OA-247	33.4	33.6	31.5	33.0	35.1	34.5	33.5	33.1	33.5
OA-249	34.0	34.8	32.3	33.9	36.0	35.2	35.4	34.0	34.5
PHY 61	32.2	32.2	30.1	32.0	34.5	32.4	33.1	32.5	32.4
PHY 72	33.9	34.5	32.6	33.8	36.7	35.1	34.9	33.8	34.4
AVERAGE	35.0	35.4	33.1	34.7	36.8	35.8	35.4	35.0	35.1
LSD .05	1.0	0.7	1.0	0.9	0.7	1.0	1.0	0.8	0.3
%CV	1.9	1.5	2.1	1.7	1.4	1.9	2.0	1.6	1.8

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SJVCB VARIETY TEST - 1999
BOLL SIZE

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CANTUA CREEK	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	5.4	6.8	6.9	6.6	7.9	7.2	7.5	6.5	6.9
GTO	5.8	6.4	6.6	6.2	7.2	7.3	5.9	6.5	6.5
C-175	5.9	6.3	6.8	6.3	6.4	7.5	6.9	6.8	6.6
C-176	4.6	6.1	6.0	6.2	6.5	6.2	6.7	6.1	6.0
C-181	6.1	6.3	6.0	5.7	5.9	7.0	6.5	6.2	6.2
DP 6100RR	5.3	5.9	5.8	6.7	5.9	6.7	6.0	5.7	6.0
GC-9642	6.0	6.3	6.5	5.9	6.8	6.5	6.3	7.1	6.4
GC-9643	5.9	6.3	6.7	6.7	6.8	7.4	6.4	6.1	6.5
GC-9645	5.0	5.4	7.5	5.5	6.1	7.1	5.9	6.6	6.1
GC-9646	5.6	6.1	6.8	5.4	6.0	7.2	6.0	5.7	6.1
OA-247	7.0	7.1	7.4	7.0	7.2	7.8	6.8	6.5	7.1
OA-249	6.3	7.4	7.0	8.2	6.9	7.1	6.7	6.9	7.1
PHY 61	6.6	6.7	6.8	7.1	7.4	6.9	6.9	7.7	7.0
PHY 72	5.3	6.1	6.3	5.9	5.8	6.6	6.3	5.9	6.0
AVERAGE	5.8	6.4	6.6	6.4	6.6	7.0	6.5	6.5	6.5
LSD .05	0.7	NS	NS	NS	NS	NS	NS	NS	0.5
%CV	5.9	7.7	10.4	10.2	14.9	12.9	7.4	10.2	10.5

SJVCB VARIETY TEST - 1999
COTTONSEED ANALYSIS*

	% MOIST	% F.M.	% LINTER	% FFA	% OIL	% NH3	% GOSYPL	GRADE
MAXXA	7.7	0.6	11.3	0.3	19.6	4.56	1.25	111
GTO	7.6	0.7	10.5	0.4	19.9	4.78	1.21	113
C-175	7.6	0.8	11.3	0.3	19.4	4.22	1.17	108
C-176	7.7	0.8	11.6	0.3	19.2	4.55	1.25	109
C-181	7.6	0.7	11.6	0.3	18.8	4.35	1.27	106
DP 6100RR	7.7	0.6	11.4	0.4	18.4	3.99	1.35	103
GC-9642	7.6	0.7	10.7	0.3	20.0	4.51	1.31	112
GC-9643	7.8	0.7	11.0	0.3	19.6	4.43	1.27	110
GC-9645	7.7	1.1	10.5	0.4	20.4	4.46	0.97	113
GC-9646	7.6	0.7	9.8	0.2	20.9	4.31	1.07	115
OA-247	7.5	0.7	11.4	0.3	20.1	4.19	1.22	110
OA-249	7.3	0.6	10.2	0.4	20.8	4.29	1.12	114
PHY 61	7.5	0.8	11.3	0.4	18.4	4.03	0.93	103
PHY 72	7.3	0.8	10.5	0.4	20.3	4.03	1.28	110
LSD .05	NS	NS	0.6	NS	0.7	0.15	0.07	3
%CV	2.4	35.4	3.2	27.9	2.2	3.0	5.4	1.4

*Average of 3 locations - Buttonwillow Waukena WSFS

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SJVCB VARIETY TEST - 1999
FINENESS AND MATURITY RATIO - AFIS

	FINENESS	STANDARD FINENESS	MATURITY RATIO	MICRONAIRE
MAXXA	159	180	0.886	4.04
GTO	157	177	0.888	4.11
C-175	159	179	0.889	3.97
C-176	159	180	0.880	3.96
C-181	163	184	0.884	4.02
DP 6100RR	166	189	0.876	3.99
GC-9642	160	179	0.894	4.05
GC-9643	159	179	0.889	4.01
GC-9645	158	178	0.886	3.97
GC-9646	159	178	0.893	3.93
OA-247	150	170	0.881	3.78
OA-249	158	176	0.897	4.14
PHY 61	160	180	0.885	3.91
PHY 72	159	179	0.884	4.04
LSD .05	2	1	0.011	0.13
%CV	1.6	1.0	1.2	3.1

TRASH CONTENT

	AFIS % SHORT FIBER	SCF/* 5 gms	SHIRLEY NON LINT%
MAXXA	6.8	64	3.0
GTO	6.0	86	3.6
C-175	5.9	53	3.2
C-176	6.8	80	4.7
C-181	6.9	61	3.3
DP 6100RR	6.1	55	2.5
GC-9642	6.6	70	3.1
GC-9643	6.5	68	2.9
GC-9645	6.3	75	3.6
GC-9646	6.1	63	3.0
OA-247	6.7	51	3.0
OA-249	6.3	53	2.3
PHY 61	6.1	55	3.1
PHY 72	6.9	51	2.1
LSD .05	0.4	9	0.5
%CV	7.6	20.3	14.3

*Seed coat fragments - manually counted.

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ITC HVI STRENGTH & ELONGATION - 1999

FIBER STRENGTH - HVI

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	32.9	34.3	34.0	33.2	32.8	35.5	31.8	34.3	33.6
GTO	32.2	34.9	32.5	34.3	33.1	34.4	32.4	33.3	33.4
C-175	35.5	35.6	35.2	35.5	34.5	36.2	33.6	37.5	35.4
C-176	33.0	32.9	33.8	33.8	32.1	33.7	32.7	34.0	33.2
C-181	33.0	33.8	32.7	33.3	31.7	35.0	33.3	33.9	33.3
DP 6100RR	31.4	32.8	33.0	34.0	32.4	34.2	32.0	33.8	32.9
GC-9642	33.8	34.3	34.7	34.5	32.6	35.0	33.1	34.4	34.0
GC-9643	33.8	33.5	33.9	34.3	32.6	37.1	32.6	35.2	34.1
GC-9645	33.5	33.0	32.5	33.9	31.2	34.0	31.2	32.8	32.7
GC-9646	36.0	36.0	34.4	36.4	33.9	36.7	34.2	36.2	35.4
OA-247	35.0	36.7	35.9	37.5	35.4	37.4	37.4	37.5	36.6
OA-249	32.1	34.3	33.9	34.3	31.9	35.6	33.9	35.2	33.9
PHY 61	34.6	31.8	33.7	33.3	32.8	34.0	31.8	33.6	33.2
PHY 72	32.7	33.1	33.9	34.7	32.4	34.1	32.1	35.6	33.6
AVERAGE	33.5	34.1	33.8	34.5	32.8	35.2	33.0	34.8	34.0
LSD .05	1.3	1.7	1.5	1.7	0.9	1.5	1.8	1.7	0.7
%CV	1.8	2.2	2.0	2.3	1.3	1.9	2.5	2.3	2.1

% ELONGATION - HVI

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	6.0	5.9	6.1	6.0	6.4	6.1	5.7	6.1	6.0
GTO	6.3	6.2	6.4	6.5	6.8	6.3	6.1	6.4	6.3
C-175	5.8	5.8	6.2	6.0	6.5	6.1	5.9	6.1	6.0
C-176	6.2	5.9	6.1	6.2	6.4	6.0	6.0	6.0	6.1
C-181	6.1	6.1	6.2	6.3	6.4	6.3	6.1	6.5	6.2
DP 6100RR	7.1	7.0	7.1	7.4	7.3	7.1	6.4	6.8	7.0
GC-9642	6.1	5.8	5.8	6.0	6.1	6.0	5.7	6.0	5.9
GC-9643	6.0	5.8	6.0	6.0	6.2	6.1	5.9	6.0	6.0
GC-9645	6.4	6.0	6.4	6.7	6.6	6.3	6.2	6.3	6.4
GC-9646	6.6	6.6	6.7	6.8	6.7	6.4	6.5	6.7	6.6
OA-247	5.7	5.7	5.9	5.6	5.9	5.9	5.7	5.8	5.7
OA-249	5.9	6.2	6.0	6.1	6.2	6.3	6.0	6.1	6.1
PHY 61	6.7	6.1	6.8	6.8	7.1	6.3	6.5	6.4	6.6
PHY 72	6.9	7.2	7.1	7.3	7.5	7.1	7.3	7.2	7.2
AVERAGE	6.3	6.2	6.3	6.4	6.6	6.3	6.1	6.3	6.3
LSD .05	0.2	0.4	0.3	0.3	0.2	0.3	0.6	0.5	0.1
%CV	1.3	3.2	1.9	2.4	1.5	2.1	4.8	4.0	2.8

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SJVCB ACALA VARIETY TEST - 1999

FINENESS - AFIS

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	164	163	159	158	157	155	163	156	159
GTO	162	162	157	153	154	161	158	153	157
C-175	165	166	156	153	157	164	162	153	159
C-176	161	167	155	156	156	162	158	156	159
C-181	166	167	161	160	162	159	165	164	163
DP 6100RR	172	171	166	158	163	166	167	163	166
GC-9642	164	164	156	157	158	159	162	160	160
GC-9643	162	163	157	155	159	160	159	159	159
GC-9645	160	165	150	150	159	157	164	159	158
GC-9646	162	160	155	156	162	161	159	158	159
OA-247	154	154	150	147	149	151	148	146	150
OA-249	164	158	158	156	160	156	155	155	158
PHY 61	163	167	153	154	155	164	164	160	160
PHY 72	162	164	158	153	157	160	163	155	159
AVERAGE	163	163	156	154	157	159	160	157	159
LSD .05	4	7	5	6	3	5	7	5	2
%CV	1.1	1.8	1.6	1.8	0.8	1.5	2.0	1.4	1.6

MATURITY RATIO - AFIS

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	0.905	0.905	0.890	0.875	0.865	0.870	0.900	0.875	0.886
GTO	0.910	0.915	0.885	0.870	0.870	0.905	0.890	0.860	0.888
C-175	0.915	0.925	0.865	0.855	0.870	0.920	0.895	0.865	0.889
C-176	0.890	0.910	0.865	0.865	0.870	0.900	0.875	0.865	0.880
C-181	0.895	0.905	0.875	0.880	0.870	0.880	0.890	0.880	0.884
DP 6100RR	0.890	0.895	0.870	0.835	0.855	0.885	0.895	0.885	0.876
GC-9642	0.905	0.915	0.880	0.880	0.880	0.895	0.900	0.895	0.894
GC-9643	0.905	0.900	0.880	0.875	0.885	0.900	0.885	0.885	0.889
GC-9645	0.895	0.930	0.860	0.850	0.885	0.885	0.900	0.885	0.886
GC-9646	0.910	0.900	0.880	0.875	0.900	0.915	0.880	0.885	0.893
OA-247	0.900	0.905	0.885	0.860	0.875	0.885	0.865	0.870	0.881
OA-249	0.925	0.910	0.900	0.885	0.905	0.890	0.880	0.880	0.897
PHY 61	0.900	0.920	0.860	0.855	0.860	0.915	0.900	0.870	0.885
PHY 72	0.895	0.910	0.885	0.865	0.865	0.890	0.900	0.865	0.884
AVERAGE	0.903	0.910	0.877	0.866	0.875	0.895	0.890	0.876	0.887
LSD .05	0.016	NS	0.020	0.024	0.016	0.025	NS	0.019	0.011
%CV	0.8	1.4	1.0	1.3	0.9	1.3	1.6	1.0	1.2

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SJVCB ACALA VARIETY TEST - 1999

CARDED 22'S YARN TENACITY - STARLAB

	BUTTON WILLOW	WASCO	WAU KENA	COR CORAN	WSFS	CAN TUA	CHOW CHILLA	LOS BANOS	MEAN
MAXXA	143	138	134	138	133	139	138	133	137
GTO	139	141	138	136	133	134	134	134	136
C-175	151	140	147	141	137	142	145	141	143
C-176	138	130	145	137	132	132	134	133	135
C-181	138	124	129	127	126	135	128	131	130
DP 6100RR	130	125	131	128	127	130	130	135	130
GC-9642	142	140	144	145	134	135	136	138	139
GC-9643	137	140	142	142	139	139	138	136	139
GC-9645	141	136	131	134	129	131	137	134	134
GC-9646	151	146	149	144	139	137	137	140	143
OA-247	150	146	155	149	155	157	146	153	152
OA-249	142	141	148	141	133	148	139	138	141
PHY 61	144	133	137	136	130	142	130	130	135
PHY 72	131	130	136	140	128	137	126	139	134
AVERAGE	141	136	140	138	134	138	136	137	138
LSD .05	10	6	11	8	6	8	11	7	4
%CV	3.4	2.0	3.5	2.6	2.1	2.7	3.8	2.5	2.9

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
O & A Enterprises, Inc.	OA-249	OA-249
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
P.O. Box 1440 Maricopa, AZ 85239	(520) 381-2219	(520) 568-2556
	7. PVPO NUMBER 200400170	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ YES ☐ NO

10. Is the applicant the original owner? ☑ YES ☐ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

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 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and employer.