No. 7200051

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Speight Seed Farms, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED 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 seventeen 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 IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS PART OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS [illegible] BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOBACCO

"Speight's G-33"

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 *this* 11th *day of* April *in the year of our Lord one thousand nine hundred and* seventy-seven

PLANT VARIETY PROTECTION OFFICE · U.S. DEPARTMENT OF AGRICULTURE

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION SPEIGHT'S G-33	2. KIND NAME FLU-CURED TOBACCO	FOR OFFICIAL USE ONLY PVPO NUMBER 72051
3. GENUS AND SPECIES NAME Nicotiana Tabacum	4. FAMILY NAME *(Botanical)* Solanaceal Nightshade 5. DATE OF DETERMINATION December---1970	FILING DATE 11/1/71 TIME 1:15 P.M. FEE RECEIVED $ 750.00 CHARGES —
6. NAME OF APPLICANT(S) SPEIGHT SEED FARMS	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)* Route 1 Winterville, North Carolina 28590	8. TELEPHONE AREA CODE AND NUMBER 919-756-0718
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

M. L. Grimsley
Speight Seed Farms
Route 1
Winterville, N. C. 28590

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

[X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*

[X] 12B. Exhibit B, Botanical Description of the Variety

[X] 12C. Exhibit C, Objective Description of the Variety

[X] 12D. Exhibit D, Data Indicative of Novelty

[X] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? Three generations Foundation-Registered-Certified

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

October 22, 1971
(DATE)

Speights Seed Farms
Mark L. Grimsley - Breeder
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

00001

FORM GR-470 (REVERSE)

RECEIVED
NOV 1 1971
U.S. DEPARTMENT OF AGRICULTURE
CMS GRAIN DIVISION

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

CHARLIE L. DAVIS L. C. SPEIGHT J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM 7200051

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

12-A

Exhibit A Origin and Breeding History of The Variety

Name: Speight's G-33

Pedigree: C. 187 x Vesta 30 x N.C. 95

Release: December 1970

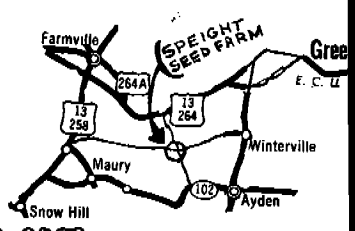
!. In July, 1957 we crossed C. 187 x Vesta 30. Results of this cross was numbered B-18. B-18 was grown and selected through the fourth generation in our disease infested nursery. Then B-18 was crossed on N.C. 95. Results of this cross, B-18 x N.C. 95, was numbered F-21.

2. F-21 was then grown in our disease infested nursery through the 5th generation making individual plant selections each generation.

3. Variants during this period were mostly two off-type plants; one type was a large broad plant with fan shaped leaves and the other was a narrow leaf Hicks type plant. The type we were selecting for resembled N.C. 95, being a little taller with slightly narrower and longer leaves. The rugosity of the leaves is a little more pronounced than N.C. 95. In its fifth generation we changed F-33 to Speight's G-33.

4. G-33 became stable in the fifth generation, was tested by

SPEIGHT SEED FARM
Speight
WINTERVILLE, N. C. 28590



CHARLIE L. DAVIS

L. C. SPEIGHT

J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM

7200051

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

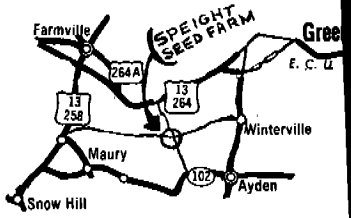
Speight Seed Farms two years before entering it in the Regional Small Plot Evaluation Test. It was tested for one year in the Regional Small Plot Test and one year in the Regional Farmer Test. Being grown at the same time on Speight Seed Farms and by a few farmers, no one found any off-type plants in G-33.

Title; Breeder

Signed; M. L. Grimsley

SPEIGHT SEED FARM

WINTERVILLE, N. C. 28590



GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

CHARLIE L. DAVIS

L. C. SPEIGHT

J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

7200051

on N.C. 95.

Disease Resistance:

Black Shank----------Moderate

Granville Wilt--------Moderate

Fuserian Wilt---------Moderate

Root Knot----------Resistant

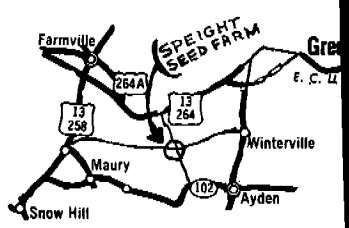
Brown Spot----------Medium High

Title: Breeder

Signed: M. L. Grimsley

SPEIGHT SEED FARM

WINTERVILLE, N. C. 28590



GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

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CHARLIE L. DAVIS L. C. SPEIGHT J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM 7200051

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

12-B

Exhibit B Botanical Description of the Variety

Name: Speight's G-33

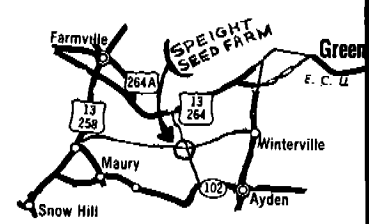
Pedigree: C. 187 x Vesta 30 x N.C. 95

Release: December 1970

1. Seeds of Speight's G-33 are smaller than Hicks and about the same as N.C. 95. It is a very green growing plant with rugosity of the leaves showing up soon after germination. Leaves grow upright in early stages, then hang more parallel later on. It grows a large seed head with flowers of more pink color than most other varieties.

2. This variety has few ground suckers. Height of plant is 46 to 47 inches as compared to 44 inches for N.C. 2326. Leaves are medium to broad in width (10 to 11 in.) with good length (22 to 23 In.). The average number of leaves are 21 to 23 per plant. Leaves hang parallel to the ground and show rugosity similar to those on N.C. 95. Maturity is about the same as N.C. 95. 58 days to flower for G-33 compared to 57 days for N.C. 95. G-33 resembles N.C. 95 being a little taller. The leaves are slightly narrower and longer compared to N.C. 95. Rugosity of the leaves on G-33 is slightly greater than of N.C. 95.

SPEIGHT SEED FARM
WINTERVILLE, N.C. 28590



GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

CHARLIE L. DAVIS

L. C. SPEIGHT

J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM

7200051

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

12-D

Exhibit D Data Indicative of Novelty

Name: Speight's G-33

Pedigree: C. 187 x Vesta 30 x N.C. 95

Release: December 1970

DATA FROM REGIONAL SMALL PLOT TEST----1969

Entry	Yield lbs/A	Value $/A	Index $/CWT	Nic. %	Nor Nic.%	Total Alk.%	Nitrogen to Nic.%	Sol. Sugar to Nic. %
Hicks	2050	$1448	$70.54	3.48	.25	3.75	0.78	2.94
N.C. 95	2139	$1499	$70.08	3.36	.23	3.61	0.84	2.82
G-33	2150	$1467	$68.22	3.23	.24	3.49	0.87	3.04
N. C. OFFICIAL VARIETY TEST OVER 5 LOCATIONS-----1970								
N.C. 2326	2483	$1926	$77.58	3.50	.21	2.29	0.65	4.47
N.C. 95	2575	$1946	$75.57	3.48	.17	2.35	0.68	3.71
G-33	2471	$1872	$75.71	3.17	.17	2.28	0.68	4.67

TOTAL ALKALOID TEST FROM SPEIGHT SEED FARMS----1968

Hicks	2.48
G-33	2.18

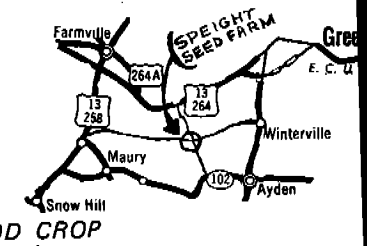
Title: Breeder

Signed: M. L. Grimsley

SPEIGHT SEED FARM

WINTERVILLE, N.C. 28590

KNOWN ORIGIN QUALITY SPEIGHT'S SEEDS ADAPTABILITY



GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

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CHARLIE L. DAVIS

L. C. SPEIGHT

J. BRANTLEY SPEIGHT

SPEIGHT SEED FARM 7200051

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – SMALL GRAINS – HYBRID CORN

TELEPHONE (919) 756-0718

WINTERVILLE, N. C. 28590

12-E

Exhibit E Statement of the Basis of Applicants Ownership

Name: Speight's G-33

Pedigree: C. 187 x Vesta 30 x N.N. 95

Release: December 1970

OWNER: SPEIGHT SEED FARMS

M. L. Grimsley, the breeder, is in the employ of Speight Seed Farms.

Title: Breeder

Signed: M. L. Grimsley

Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – HYBRID CORN

BOX 507 • PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

7200051

12-B Botanical Description of the Variety
Name- Speight's G-33
Pedigree- C-187 x Vesta 30 x NC 95
Release: Dec-1970

1. G-33 most closely resembles NC 95. It matures three days later (59 vs 62 days). G-33 grows about two inches taller (43 vs 45 inches). Leaves are slightly narrower (21.4 vs 22.1 inches) and are about the same length as NC 95 (22inches). It produces one more leaf per plant (20.4 vs 19.3). Leaves grow upright until maturity, then they hang parallel to the ground. Rugosity of the leaves is slightly greater than NC 95.

2. Speights G-33 grows greener than NC 95. It has a few less ground suckers (1.4 vs 2.1). Seed heads are more open with pink colors, Rugosity of the leaves are more pronounded, showing up in earlier stages of growth than NC 95. Flowers three days later(65 vs 62 days).

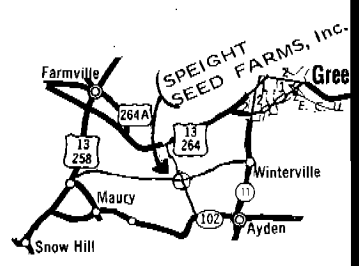
3. Three year average 1970-1971-1972
N.C official variety test comparison

Variety or line	Yield lbs/acre	Days to flower	Leaves per plant	Height of plant	Ground suckers
NC 95	2427	59	19.3	43	2.1
G-33	2487	62	20.4	45	1.4
NC 2326	2297	56	17.9	42	0.9

Variety or line	Width of leaf (in)			Length of leaf (in)		
	5th	10th	15th	5th	10th	15th
NC 95	8.8	11.1	12.6	19.0	22.7	22.5
G-33	8.1	10.1	11.9	19.1	22.4	22.6
NC 2326	8.5	10.8	12.4	21.3.	24.2	23.2

% Diseased-Summary of Disease Resistance 1974

Variety or line	Black shank	Bacterial wilt	Root knot	Brown spot
NC 95	9.1	14.0	Res.	Mod. tol.
G-33	29.7	43.0	Res.	Tol.



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GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – HYBRID CORN

BOX 507 ● PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

7200051

12-B

Exhibit B-Botanical Description of the Variety

Name: Speight's G-33

Pedigree: C-187 X Vesta 30 X NC 95

1. Seeds of Speight's G-33 are larger than NC 95. Soon after the seed germinate, small plants begin showing rugosity of the leaves on the plant bed. This characteristic certainly separates Speight G-33 seedlings from NC 95 in the early stages. This variety grows greener than NC 95. Leaves grow more upright in the early stages and hang parallel with the ground at maturity. Flower heads are pink in color, and more open than NC 95.

2. G-33 has about the same number of ground suckers as NC 95. Height of plant is about two inches taller with two more leaves per plant. Leaves are usually 10 or 11 inches in width, about one inch narrower than NC 95. They are about the same length or slightly longer. Leaves are slightly more puckered at maturity than NC 95. It flowers about three days later. It yields higher usually and cured leaf is slightly deeper in color than NC 95. G-33 usually produces mostly medium bodied tobaccos.

7200051

N. C. OFFICIAL VARIETY TEST
1973

WHITEVILLE, ROCKY MOUNT, OXFORD AND REIDSVILLE

Table 4. Comparison of varieties for certain characteristics for four locations.

Varieties or Lines	Yield Lbs/A	Value Index Dol/A	Value Index Dol/Cwt.	Q.I.	Days to Flower	Leaves per Plant	Height of Plant	Ground Suckers
Commercially Available Varieties								
NC 2326	2754	2412	87.62	30.9	55	17.3	45	0.7
NC 95	2708	2366	87.37	32.5	61	18.9	44	1.4
Coker 254	2769	2421	87.44	30.6	66	20.6	49	3.5
Coker 298	2783	2428	87.22	33.8	66	21.2	50	0.9
Coker 319	2839	2486	87.57	30.2	62	19.7	45	1.4
Coker 347	2971	2584	86.81	32.6	64	20.9	44	1.7
Coker 411	2933	2574	87.77	29.6	60	19.2	43	0.9
McNair 133	2605	2284	87.68	30.6	63	19.6	47	2.4
McNair 135	2935	2554	87.09	34.1	63	20.6	48	0.8
McNair 944	2979	2596	87.13	33.3	60	18.8	44	0.9
NC 88	2913	2554	87.70	30.6	62	19.3	48	1.8
SC 72	2727	2381	87.31	32.7	63	19.4	45	1.1
Speight G-28	2858	2497	87.37	32.7	62	20.0	41	0.8
Speight G-33	2959	2578	87.17	32.9	65	20.4	47	1.5
Speight G-41	2701	2348	86.97	32.8	63	19.7	45	1.0
Speight G-140	3118	2730	87.60	31.2	64	20.6	46	1.4
Va. 080	2601	2271	87.35	32.8	61	18.9	44	1.7
Va. 115	2856	2491	87.24	33.5	59	18.4	43	0.9

7200051

N. C. OFFICIAL VARIETY TEST
23
1973

Table 5 Summary information on disease resistance.

Varieties or Lines	Level of Resistance					
	Black Shank[a/]	Bacterial Wilt[a/]	Fusarium Wilt[a/]	Root Knot[b/]	Brown Spot[c/]	Mosaic[b/]
NC 2326	32.0	71.8	79.2			
NC 99	34.0	10.3	43.1	Res.	.319	
Coker 254	37.3	19.0	84.7	Res.	.343	
Coker 298	19.1	30.3	70.7		.481	
Coker 319	42.7	54.5	68.9		1.000	
Coker 347	54.4	19.3	70.9	Res.	.576	
Coker 411	50.7	75.0	73.6		.386	
McNair 133	54.0	22.8	78.2		.581	
McNair 135	72.1	74.0	52.4		.619	
McNair 944	46.7	47.8	94.5		.809	
NC 88	71.8	47.8	59.7		.481	
SC 72	50.4	18.3	65.8	Res.	.414	
Speight G-28	22.9	33.8	77.8	Res.	.581	
Speight G-33	49.1	37.5	40.3	Res.	.409	Res.
Speight G-41	33.3	12.5	51.7	Res.	.314	
Speight G-140	42.0	27.8	70.9	Res.	.314	
Va. 08[illegible]	84.6	61.5	52.8		.386	
Va. 113	62.2	68.3	100.0	Res.	.313	
					.576	Seg.

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Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED – SOYBEANS – HYBRID CORN

BOX 507 • PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

7200051

12-D Exhibit D Particulars of Trial Performance of Speights G-33

Speights G-33 most closely resembles NC 95. However, G-33 matures about three days later(62 vs 59 days), grows two inches taller(45 vs 43 inches), with 1.8 cm. shorter leaves (21.4 vs 22.1 inches). Plants are greener and rugosity of the leaves are more pronounced at maturity. Produces one more leaf per plant (20.4 vs 19.3). Yields are usually higher.

Three year average performance 1970-1972-1973
North Carolina Official Tobacco Variety

Variety checks	Yield lbs/acre	Days to flower	Leaves per plant	Height of plant
NC 2326	2297	56	17.9	42
NC 95	2427	59	19.3	43
G-33	2487	62	20.4	45

Variety checks	Suckers per plant		Width of leaf (in)			Length of leaf (in)		
	Ground	Leafavil	5th	10th	15th	5th	10th	15th
NC 2326	.9	25.3	8.5	10.8	12.4	21.3	24.2	23.2
NC 95	2.1	22.5	8.8	11.1	12.6	19.0	22.7	22.5
G-33	1.4	23.3	8.1	10.1	11.9	19.1	22.4	22.6

Variety checks	Nic %	Nor Nic %	Red Sug %	Tot. Nic %	Tot. N Nic. Ratio	Sug. Nic. Ratio
NC 2326	3.41	.25	15.51	2.24	.66	4.85
NC 95	3.50	.23	14.32	2.29	.67	4.45
G-33	3.10	.20	16.03	2.11	.70	5.67

% Diseased-Summary of Disease Resistance 1974

Variety or line	Black shank	Bacterial wilt	Root knot	Brown spot
NC 95	9.1	14.0	Res.	Mod. tol
G-33	29.7	43.0	Res.	Tol.

KNOWN ORIGIN QUALITY SPEIGHT'S SEEDS ADAPTABILITY

GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

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72051 SPEIGHT G-33

7200051

FORM GR-470-31 (page 2)

GROUPING: STANDARD VARIETIES

01 = NC 95 | 02 = NC 2326 | 03 = COKER 319 | 04 = HICKS | 05 = SPEIGHT G-28 | 06 = SC 58
07 = Ky 151 | 08 = BURLEY 21 | 09 = BURLEY 49 | 10 = Ky 10 | 11 = MARYLAND 609 | 12 = Ky 165
13 = Pennbel 69 | 14 = HAVANA 503 | 15 = FLORIDA 17 | 16 = OTHER _____

RECEIVED JAN 24 1977

7. LEAF NUMBER (Select code from Standard Varieties listed above)

TOPPED NORMAL:

[2 0.4] NO. PER PLANT

[2 0.4] NO. OF LEAVES > 40.6 CM [1 0 7] CM HEIGHT OF LAST LEAF > 40.6 CM

NOT TOPPED:

[2 5.0] NO. OF LEAVES OR NODES TO "CROWFOOD" FROM 1ST HARVESTABLE LEAF

8. INTERNODES (Topped) (Select code from Standard Varieties listed above)

[5 6] MM LENGTH [3] MM SHORTER THAN ..... [0 1] [ ] MM LONGER THAN ..... [ ]

9. LEAF CHARACTERISTICS:

PETIOLE ANGLE:

[3 5] DEGREES [1] GROUPING: 1 = < 35° 2 = 35–45° 3 = 46–65° 4 = > 65°

LEAF CARRIAGE

[2] 1 = ARCHED (DROOPING) 2 = HORIZONTAL 3 = UPRIGHT

LEAF COLOR (At topping or when 50% of plants with 1 flower)

[3] 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = YELLOW–GREEN 5 = YELLOW

LEAF SHAPE:

[3] 1 = BROADER THAN LONG 2 = LENGTH EQUALS WIDTH 3 = LONGER THAN BROAD

[1] 1 = BROADEST AT MIDDLE 2 = BELOW MIDDLE 3 = ABOVE MIDDLE

TIP SHAPE

[2] 1 = ACUTE 2 = ACUMINATE 3 = OBTUSE

VENATION PATTERN:

[2] 1 = SQUARE 2 = ANGULAR

LEAF SURFACE

[2] 1 = SMOOTH (HICKS) 2 = PUCKERED (NC 95)

LEAF MARGIN

[1] 1 = WAVY 2 = NOT WAVY [2] 1 = RECURVED 2 = NOT RECURVED

10. FLOWERS:

[2] COLOR: 1 = WHITE 2 = PINK 3 = RED 4 = OTHER _____

FLOWER HEAD HABIT:

[2] 1 = CLOSED (NC 95) 2 = INTERMEDIATE 3 = OPEN (HICKS)

11. PLANT FORM

[2] 1 = PYRAMIDAL 2 = COLUMNAR 3 = OTHER (Specify) _____

12. GROUND SUCKERS:

[2 2] NO. PER PLANT

13. DISEASE (0 = Not tested, 1 = Susceptible, 2 = Resistant)

[2] BLACK SHANK (RACES) 1 _____

[1] BLACK ROOT ROT

[1] BLUE MOLD

[0] WILDFIRE (SPECIES) _____

[0] BLACKFIRE

[2] FUSARIUM WILT (NICOTIANA)

[0] FUSARIUM WILT (BATATAS)

[0] FROGEYE

[ ] BROWN SPOT To larent

[2] BACTERIAL WILT

00011

G

FORM GR-470-31
(12-16-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

OBJECTIVE DESCRIPTION OF VARIETY

Tobacco (Nicotiana tabacum)

NAME OF APPLICANT(S)
Speight Seed Farm, Inc.

ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code)
P. O. Box 507
Winterville, N. C. 28590

VARIETY NAME OR TEMPORARY DESIGNATION
Speight's G-33

FOR OFFICIAL USE ONLY
PVPO NUMBER 7200051
72051

Place the appropriate number that describes the varietal character in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9] when number is either 99 or less or 9 or less.

1. CLASS:

[1] 1 = FLUE-CURED 2 = FIRE-CURED 3 = AIR-CURED 4 = CIGAR FILLER 5 = CIGAR BINDER 6 = CIGAR WRAPPER
7 = MISCELLANEOUS-DOMESTIC 8 = FOREIGN-CIGAR LEAF 9 = FOREIGN-NON-CIGAR LEAF

[ ] AIR-CURED: 1 = BURLEY 2 = MARYLAND 3 = DARK AIR-CURED

STANDARD VARIETIES

01 = NC 95	02 = NC 2326	03 = COKER 319	04 = HICKS	05 = SPEIGHT G-28	06 = SC 58
07 = Ky 151	08 = BURLEY 21	09 = BURLEY 49	10 = Ky 10	11 = MARYLAND 609	12 = Ky 165
13 = Pennbel 69	14 = HAVANA 503	15 = FLORIDA 17	16 = OTHER		

2. MATURITY (Transplant to 50% plants 1 Fl.) (Select code from Standard Varieties listed above)

[55] NO. OF DAYS
[ ] DAYS EARLIER THAN . . . [ ]
[3] DAYS LATER THAN . . . . [01]

3. SEEDING TO TRANSPLANTING (Select code from Standard Varieties listed above)

[80] NO. OF DAYS
[ ] DAYS EARLIER THAN . . . [ ]
[3] DAYS LATER THAN . . . . [01]

4. PLANT HEIGHT (After topping) (Select code from Standard Varieties listed above)

[96] CM TALL
[ ] CM SHORTER THAN . . . . [ ]
[3] CM TALLER THAN . . . . . [01]

5. LEAF SIZE (At leaf maturity) (Select code from Standard Varieties listed above)

LENGTH

[48.3] CM 5TH LEAF
[30] CM SHORTER THAN . . . . [01]
[ ] CM LONGER THAN . . . . . [ ]

[54.1] CM 10TH LEAF
[43] CM SHORTER THAN . . . . [01]
[ ] CM LONGER THAN . . . . . [ ]

[54.7] CM 15TH LEAF
[13] CM SHORTER THAN . . [01]
[ ] CM LONGER THAN . . . [ ]

WIDTH

[20.3] CM 5TH LEAF
[20] CM NARROWER THAN . . . [01]
[ ] CM WIDER THAN . . . . . [ ]

[24.6] CM 10TH LEAF
[33] CM NARROWER THAN . . . [01]
[ ] CM WIDER THAN . . . . . [ ]

[27.9] CM 15TH LEAF
[23] CM NARROWER THAN [01]
[ ] CM WIDER THAN . . . . [ ]

6. LEAF YIELD (Select code from Standard Varieties listed above)

[2786] KG/HA
[ ] % LESS THAN . . . . . [ ]
[9] % MORE THAN . . . . . [01]

00010

13. DISEASE (0 = Not tested, 1 = Susceptible, 2 = Resistant)

1	POTATO VIRUS Y	1	TMV
0	NEMATODE ROOT ROT (LESION, SPECIES)	2	ROOT KNOT NEMATODE
0	TOBACCO ETCH VIRUS	0	OZONE AIR POLLUTION
	OTHER (Specify)		OTHER (Specify)

NOTE: Under 16 "Comments", give comparative reaction with a standard variety appropriate for each disease tested and indicate if disease reaction of the variety exceeds, equals or is less than that of the standard).

14. LEAF CONSTITUENTS (Give data for described and standard variety):

VARIETY	NICOTINE %	NOR NICOTINE %	TOTAL NITROGEN %	REDUCING SUGARS % (FLUE-CURED)
SUBMITTED	3.04	.24	2.03	14.32
STANDARD	3.64	.30	2.32	16.14
NAME OF STANDARD VARIETY	NC 95	NC 95	NC 95	NC 95

15. VARIETIES MOST CLOSELY RESEMBLING THAT DESCRIBED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
MATURITY	NC 95 GT	LEAF TIP SHAPE	NC 2326
LEAF LENGTH	NC 95	VENATION PATTERN	NC 95
LEAF WIDTH	NC 2326	LEAF SURFACE	NC 95 GT
LEAF CARRIAGE	NC 2326	LEAF MARGIN	NC 2326
PETIOLE ANGLE	NC 95	LEAF COLOR	NC 2326
LEAF SHAPE	NC 2326	PLANT FORM	NC 95

16. COMMENTS (For increasing accuracy of description)

Speight's G-33

Most closely resembles NC 95, but differs in being about two inches taller, producing about two more leaves per plant. Rugosity of the leaves are more pronounced. It flowers about three days later and yields are higher than NC 95.