

[54] FORSYTHIA PLANT NAMED 'PYGMY-RED'

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[52] U.S. Cl. Plt./54

[58] Field of Search Plt./54

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This invention relates to a new cultivar of Forsythia named "Pygmy-Red", which is characterized especially by its low growth habit, its narrow leaves, and the red color of current shoots at maturity.

The new variety was derived as a seedling from a vegetative line of mutants, which had been produced in turn by subjecting rooted cuttings of parent "Lynwood Gold" (a sport of *F. intermedia* "Spectabilis").

In 1968, three hundred cuttings of "Lynwood Gold" that had been potted and held in cold storage (38° F.) for six weeks and then returned to the greenhouse for two days were irradiated with 1200 rad fast neutrons. One of the plants of this group that broke dormancy formed a shoot with variegated foliage. This plant was cut back repeatedly to induce branching and eventually formed shoots that exhibited different characteristics. Each shoot was propagated by stem cuttings over 10 vegetative generations of selection and propagation. From this plant population two vegetatively selected types and three seedlings were selected. Further propagation and testing of these selections over several more years were shown to be the stable and new forsythia varieties that are the subject of this and four other co-pending plant patent applications; viz:

Ser. No.	Name	Type
272,063	"Lemon-Screen"	vegetative selection
273,489	"Tinkle Bells"	vegetative selection
271,919	"Minikin"	seedling
271,665	"Fairy Land"	seedling
271,666	"Pygmy-Red"	seedling

Each differs greatly from the parent "Lynwood Gold" and also from one another.

"Pygmy-Red" was selected at the seedling stage because of its distinct foliage form and growth character-

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[57] ABSTRACT

A new cultivar of Forsythia named 'Pygmy-Red' characterized by its small shrub size, its narrow foliage, and the distinct red color of its currently matured shoots.

3 Drawing Sheets

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istics. The seedling showed good growth characteristics in the field, a distinct red coloration in mature current year shoots, and maroon fall color on the upper side of the leaves. Cuttings from this plant have been rooted in soil and asexually propagated, and its progeny have displayed homogeneous and stable characteristics.

Throughout this specification, color names beginning with a small letter signify that the name of the color as used in common speech are aptly descriptive. Color names beginning with a capital letter designate values based on the R.H.S. Colour Chart, published by The Royal Horticultural Society of London, England.

The accompanying drawings illustrate the new variety in color as grown in Knox County within the State of Tennessee.

FIG. 1 illustrates "Pygmy-Red" in spring bloom. The measuring stick is set on the ground and is 4 ft. long.

FIG. 2 shows lowered cut stems.

FIG. 3 is a close-up view of the flowers of FIG. 2 which also illustrates the red color of the currently matured shoots.

FIG. 4 illustrates the "Pygmy-Red" plant in May foliage.

FIG. 5 is a closer view of the foliage shown in FIG. 4.

The following characteristics distinguish "Pygmy-Red" from its parent and other Forsythia cultivars:

THE PLANT

"Pygmy-Red" has a low growth habit. The plant form is loose, but graceful, some branches bending to the ground and rooting where they touch the soil. The plant is a hardy (to Zone 6b or lower), shows good vigor but develops few seed pods. It is a flowering shrub, blooming readily when used for forcing into

flower in a greenhouse-and suitable for containers. The ultimate size of "Pygmy-Red" is about 3½ to 4½ ft. in height and 5 ft. to 6 ft. wide. The size of "Pygmy-Red" makes it particularly useful for road median planting, small visual and physical landscape screens and barriers, or for mass planting in parks. The plant requires minimal pruning and has disease and insect-resistant foliage.

Its parent, "Lynwood Gold", by contrast is tall and slender—a straight upright variety with erect stems and which attains a height of 6 ft. to 7½ ft. at maturity.

FLOWER

"Pygmy-Red" flowers at an intermediate stage. The yellow flowers (Yellow 6A in color) are 1½ in. to 1½ in. diameter and generally have four, but sometimes five, petals. The corolla lobes are narrow. The pistils extend 2/25 in. to 3/25 in. above the pollen sacs of the stamen. The plant produces two flowers per node on the flowering wood, which has internodes ½ in. to 1½ in. in length.

SHOOTS

The currently matured Pygmy-Red shoots have a distinct red color (Purple Red 59 A); high anthocyanin pigmentation of the mature current shoots is also expressed in the maroon fall color of the foliage when the plant is grown with full exposure to direct sunlight. The shoots are lamellate between nodes, flexible, bending to touch the ground, which leads to self-propagation by layering.

The stems of the "Lynwood Gold" parent are green when young and brown when mature; they are a bit stiff; the pith at the nodes is lamellate, and on one year shoots, the stems between nodes are hollow.

FOLIAGE

The "Pygmy-Red" leaves are dark green in color when both young and mature. The leaves are simple, serrate and lanceolate, being acuminate at the tip and attenuate at the base, 0.3 in. to 0.4 in. wide and 2 in. to 2½ in. long on flowering wood. The leaves on vegetative shoots are somewhat larger, up to 1 in. wide and 2¾ in. long. Venation is pinnate. Few, if any, lobed leaves occur on vegetative shoots, as often occurs with other Forsythia cultivars. Even on fast growing vegetative shoots, the internodes are less than 1½ in. long.

The leaves of the "Lynwood Gold" parent, on the other hand, are ovate lanceolate in shape and about 3" to 4½" long and about 1" to 1½" wide. Both young and old leaves are deep green in color.

To facilitate the comparison of the characteristics and features of "Pygmy-Red", the subject of this application, and its parent, "Lynwood Gold" and also with the four other new mutant offspring varieties of "Lynwood Gold" referred to above, there are attached hereto as Tables 1-5 comparative tabulations of the characteristics and properties of parent and its five offspring mutants that were developed from a single irradiated plant of "Lynwood Gold." Table 1 compares "Pygmy-Red" and its parent "Lynwood Gold". Table 2 compares "Pygmy-Red" and "Fairy-Land". Table 3 compares "Pygmy-Red" and "Tinkle Bells". Table 4 compares "Pygmy-Red" and "Minikin". Table 5 compares "Pygmy-Red" and "Lemon Screen".

TABLE 1

S/N: 271,666	
PYGMY RED	
LYNWOOD GOLD	
Plant:	

TABLE 1-continued

S/N: 271,666		LYNWOOD GOLD	
PYGMY RED			
5	Habit	Low, loose graceful arching to ground	Tall, slender-Upright straight & erect stems
	Size, height	3½'-4½'	6'-7½'
	Size, width	5'-6'	
	Vigor	Good vigor	
	Hardiness	Hardy Zone 6b (or lower)	
10	Productivity	Readily roots where branches touch ground few seed pods	Fertile
	Stems:		
	Color (young)	High anthocyanin	Green
	Color (mature)	Purple Red (59 A)	Brown
15	Rigidity	Flexible lamellate between nodes	A bit stiff; pith nodes lamellate; hollow between nodes on one year shoots
	Leaves:		
20	Type	Simple	
	Color:		
	(young)	Dark Green	Deep Green
	(mature)	Dark Green	Deep Green
	(fall)	Anthocyanin (maroon) expressed in full sun	
25	Shape	Lanceolate (few lobed leaves on vegetative shoots)	ovate lanceolate
	tip	Accuminate	
	base	Attenuate	
	margins	Serrate	
30	Size:		
	length	2"-2½" on flowering wood; to 2¾" on vegetative wood	3-4½"
	width	0.3"-0.4" on flowering wood; to 1" on vegetative wood	1-1½"
35	Venation	Pinnate	
	Flower:		
	Date of Flowering	Intermediate	Late
	Size: width	1½"-1½"	1"-1½" (medium)
40	Color:	Yellow (7A)	Brilliant Yellow (lighter than its parent Spectabilis)
	Corolla:		
	length		
	lobes	Narrow	Reflexed
45	Petals: number	4 - sometimes 5	Large, broad, open Elliptic
	Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens	Extend well above pollen sacs (anthers) of stamens
	Number per node:	2	
50	Insertion angle on upright stems:		
	Internodes:	1"-1½" (1½" even on fast growing shoots)	Flowers almost evenly spaced on stems
	Stress Resistance:	disease and insect	
55	Utility Aspects:		

TABLE 2

S/N: 271,666		S/N 271,665	
PYGMY RED		FAIRY LAND	
60	Plant:		
	Habit	Low, loose graceful arching to ground	Small overall & fine textured: Closely spaced flowers & leaves Dense (young) foliage
	Size, height	3½'-4½'	3'-4'
	Size, width	5'-6'	5'-6'
	Vigor	Good vigor	Good vigor for size
	Hardiness	Hardy Zone 6b	Zone 6b (or lower)

TABLE 2-continued

	S/N: 271,666 PYGMY RED	S/N 271,665 FAIRY LAND
Productivity	(or lower) Readily roots where branches touch ground few seed pods	Few seed pods
Stems:		
Color (young)	High anthocyanin	Light green
Color (mature)	Purple Red (59 A)	Brownish green
Rigidity	Flexible lamellate between nodes	Very flexible lamellate between nodes
Leaves:		
Type	Simple	Simple
Color:		
(young)	Dark Green	Medium green (fairly light)
(mature)	Dark Green	Medium green (fairly light)
(fall)	Anthocyanin (maroon) expressed in full sun	Mostly faded yellow
Shape	Lanceolate (few lobed leaves on vegetative shoots)	Lanceolate
tip	Accuminate	Accuminate
base	Attenuate	Attenuate
margins	Serrate	On flowering wood; entire On vegetative wood: serrate top $\frac{1}{2}$
Size:		
length	2"-2 $\frac{1}{2}$ " on flowering wood; to 2 $\frac{3}{4}$ " on vegetative wood	On flowering wood: 1 $\frac{1}{2}$ "-2 $\frac{1}{4}$ " On vegetative shoots: about 3"
width	0.3"-0.4" on flowering wood; to 1" on vegetative wood	On flowering wood: 0.2"-0.4" On vegetative shoots 0.5-0.6"
Venation	Pinnate	Pinnate
Flower:		
Date of	Intermediate	Intermediate
Flowering		
Size: width	1 $\frac{1}{4}$ "-1 $\frac{1}{2}$ "	$\frac{3}{4}$ "-1 $\frac{1}{4}$ "
Color:	Yellow (7A)	Yellow (6 A)
Corolla:		
length		
lobes	Narrow	Reflexed, small
Petals: number	4 - sometimes 5	Generally 4-many have 5, 6, 7 and 8 on single corolla
Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens	Extend 3/25" to 4/25" above pollen sacs (anthers) of the stamen
Number per node:	2	2-4
Insertion angle on upright stems:		
Internodes:	1"-1 $\frac{1}{2}$ " (1 $\frac{1}{2}$ " even on fast growing shoots)	$\frac{1}{2}$ " to about 1"
Stress Resistance:	disease and insect	
Utility Aspects:		Very well suited for container culture

TABLE 3

	S/N: 271,666 PYGMY RED	S/N 273,489 TINKLE BELLS
Plant:		
Habit	Low, loose graceful arching to ground	Semi-dwarf; Upright
Size, height	3 $\frac{1}{2}$ '-4 $\frac{1}{2}$ '	4'-4 $\frac{1}{2}$ '
Size, width	5'-6'	
Vigor	Good vigor	Medium vigor
Hardiness	Hardy Zone 6b (or lower)	Hardy Zone 6b (or lower)
Productivity	Readily roots where branches touch ground few seed pods	Does not layer naturally (replicates from stools (no

TABLE 3-continued

	S/N: 271,666 PYGMY RED	S/N 273,489 TINKLE BELLS
Stems:		seed pods observed)
Color (young)	High anthocyanin	Yellow Green
Color (mature)	Purple Red (59 A)	Light brown
Rigidity	Flexible lamellate between nodes	Sparsely lamellate between nodes - Rigid
Leaves:		
Type	Simple	Simple
Color:		
(young)	Dark Green	Medium green
(mature)	Dark Green	Medium green
(fall)	Anthocyanin (maroon) expressed in full sun	Faded green to yellow
Shape	Lanceolate (few lobed leaves on vegetative shoots)	Elliptical
tip	Accuminate	Acute on flower shoots acuminate on vegetative shoots
base	Attenuate	
margins	Serrate	serrate on upper $\frac{1}{2}$ near tip
Size:		
length	2"-2 $\frac{1}{2}$ " on flowering wood; to 2 $\frac{3}{4}$ " on vegetative wood	2"-3" (with petiole)
width	0.3"-0.4" on flowering wood; to 1" on vegetative wood	$\frac{1}{2}$ "
Venation	Pinnate	Pinnate
Flower:		
Date of	Intermediate	Early
Flowering		
Size: width	1 $\frac{1}{4}$ "-1 $\frac{1}{2}$ "	$\frac{1}{2}$ "- $\frac{3}{4}$ " at 45° angle
Color:	Yellow (7A)	Bright Yellow (7 B)
Corolla:		
length		
lobes	Narrow	$\frac{1}{2}$ " open to 45° angle not reflexed during prime
Petals: number	4 - sometimes 5	4; occasionally 5 or 6
Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens	short: anthers slightly below stigma portion of pistil
Number per node:	2	2; often 4 per node
Insertion angle on upright stems:		buds & flowers pendulous
Internodes:	1"-1 $\frac{1}{2}$ " (1 $\frac{1}{2}$ " even on fast growing shoots)	$\frac{1}{2}$ "-1 $\frac{1}{2}$ "
Stress Resistance:	disease and insect	Disease and insect
Utility Aspects:		Can force flowering suitable for container culture

TABLE 4

	S/N: 271,666 PYGMY RED	S/N 271,919 MINIKIN
Plant:		
Habit	Low, loose graceful arching to ground	Small stature, fine textured; small leaves and small stems; densely foliated
Size, height	3 $\frac{1}{2}$ '-4 $\frac{1}{2}$ '	2'-2 $\frac{1}{2}$ '
Size, width	5'-6'	3'-4'
Vigor	Good vigor	Good vigor but slow growth
Hardiness	Hardy Zone 6b (or lower)	Zone 6b (or lower)
Productivity	Readily roots where branches touch ground few seed pods	Layers naturally Abundant seed pods
Stems:		
Color (young)	High anthocyanin	Light green
Color (mature)	Purple Red (59 A)	Brownish green
Rigidity	Flexible lamellate between nodes	Ascending strongly lamellate between

TABLE 4-continued

	S/N: 271,666 PYGMY RED	S/N 271,919 MINIKIN
		nodes
Leaves:		
Type	Simple	Simple
Color:		
(young)	Dark Green	Bright green to dark green
(mature)	Dark Green	Bright green to dark green
(fall)	Anthocyanin (maroon) expressed in full sun	Fading green until leaf drop
Shape	Lanceolate (few lobed leaves on vegetative shoots)	Linear
tip	Accuminate	Accuminate
base	Attenuate	Attenuate
margins	Serrate	Lightly serrate
Size:		
length	2"-2½" on flowering wood; to 2¾" on vegetative wood	On vegetative shoots- 1½" attached to ½" long slender petiole; smaller on flowering shoots
width	0.3"-0.4" on flowering wood; to 1" on vegetative wood	On vegetative shoots - ¼";
Venation	Pinnate	Pinnate
Flower:		
Date of Flowering	Intermediate	Intermediate
Size: width	1¼"-1½"	½"-¾" (cup shaped) fully reflexed
Color:	Yellow (7A)	Yellow (9 A)
Corolla:		
length		
lobes	Narrow	strongly reflexed, very small
Petals: number	4 - sometimes 5	4:- short and recurved
Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens	Short; 1/25" below pollen sacs of stamens
Number per node:	2	2-4
Insertion angle on upright stems:		
Internodes:	1"-1½" (1½" even on fast growing shoots)	Short (Flowering shoots ¼-¾" Vegetative shoots up to 2")
Stress Resistance:	disease and insect	Doesn't require same degree of winter protection as most container grown plants of genre
Utility Aspects:		Blooming can be forced. Especially suited for container culture.

TABLE 5

	S/N: 271,666 PYGMY RED	S/N 272,063 LEMON SCREEN
Plant:		
Habit	Low, loose graceful arching to ground	Tall, open and graceful; Upright, fan shape; vigorous; open

TABLE 5-continued

	S/N: 271,666 PYGMY RED	S/N 272,063 LEMON SCREEN
		foliage
Size, height	3½'-4½'	Up to 10'
Size, width	5'-6'	Hardy Zone 6b (or lower)
Vigor	Good vigor	Vigorous
Hardiness	Hardy Zone 6b (or lower)	
Productivity	Readily roots where branches touch ground few seed pods	Abundant Flowers/ highly sterile/pruned wood branches quickly
Stems:		
Color (young)	High anthocyanin	
Color (mature)	Purple Red (59 A)	Yellow
Rigidity	Flexible lamellate between nodes	Slightly lamellate between nodes
Leaves:		
Type	Simple	Simple
Color:		
(young)	Dark Green	Yellow green 151 B or Chartreuse (appear after flowering)
(mature)	Dark Green	Normal green (Yellow-Green 144) whitish blotches
(fall)	Anthocyanin (maroon) expressed in full sun	Greyed Purple 187 B
Shape	Lanceolate (few lobed leaves on vegetative shoots)	
tip	Accuminate	Accuminate
base	Attenuate	Attenuate
margins	Serrate	Serrate
Size:		
length	2"-2½" on flowering wood; to 2¾" on vegetative wood	Not distinguishing
width	0.3"-0.4" on flowering wood; to 1" on vegetative wood	Not distinguishing
Venation	Pinnate	Pinnate
Flower:		
Date of Flowering	Intermediate	Early
Size: width	1¼"-1½"	1½"-1¾"
Color:	Yellow (7A)	Yellow (6 C)
Corolla:		
length		
lobes	Narrow	Somewhat reflexed
Petals: number	4 - sometimes 5	4, sometimes fasciated
Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens	aborted stamens &/or pistils
Number per node:	2	4 to 8
Insertion angle on upright stems:		
Internodes:	1"-1½" (1½" even on fast growing shoots)	1" to 2" long on flowering wood
Stress Resistance:	disease and insect	Summer foliage disease & insect resistant
Utility Aspects:		Summer pruning leads to shoot with chartreuse leaves (young)

What is claimed is:

1. A new and distinct cultivar of Forsythia named 'Pygmy-Red', substantially as shown and described herein.

* * * * *

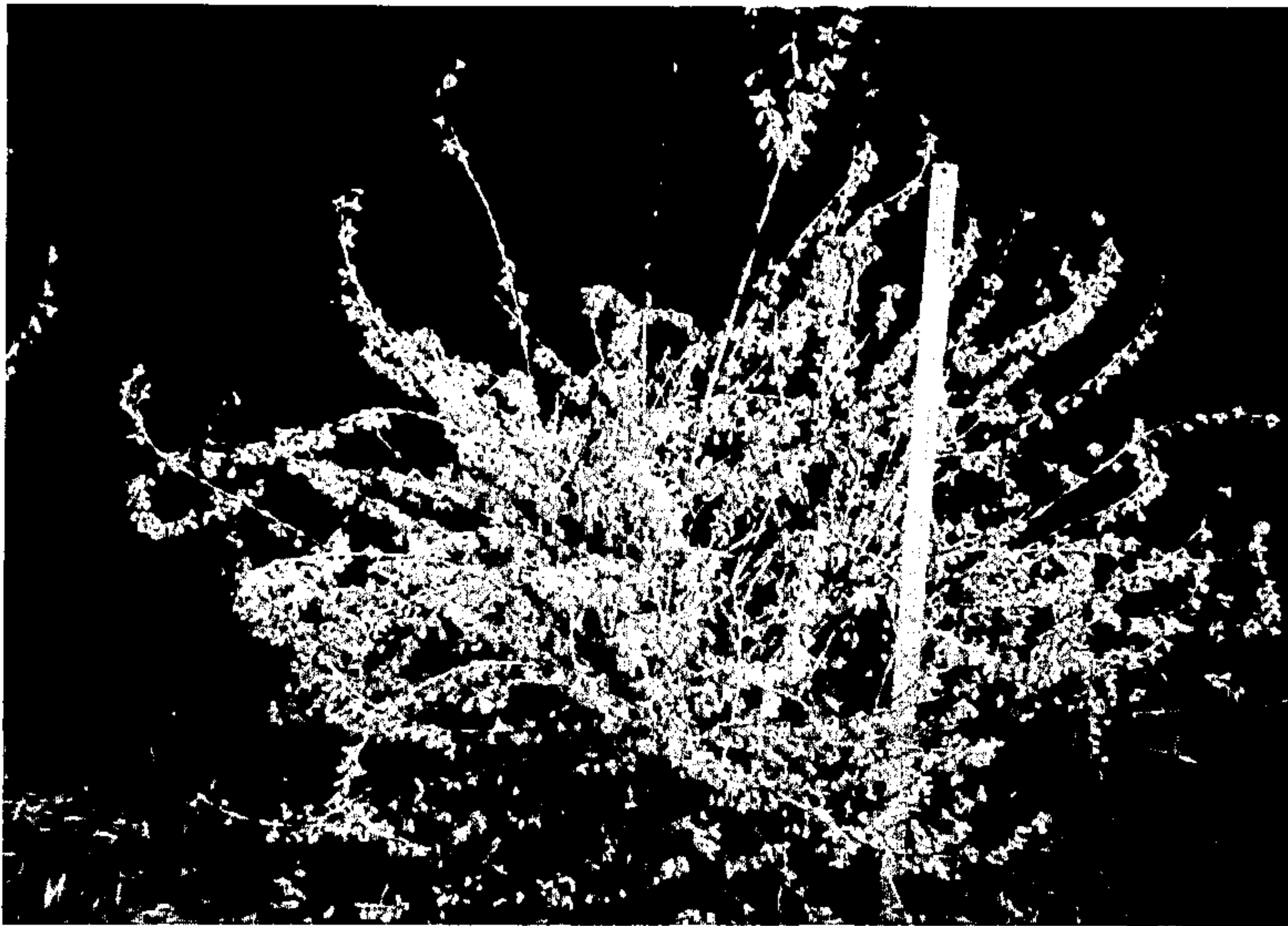


FIG 1

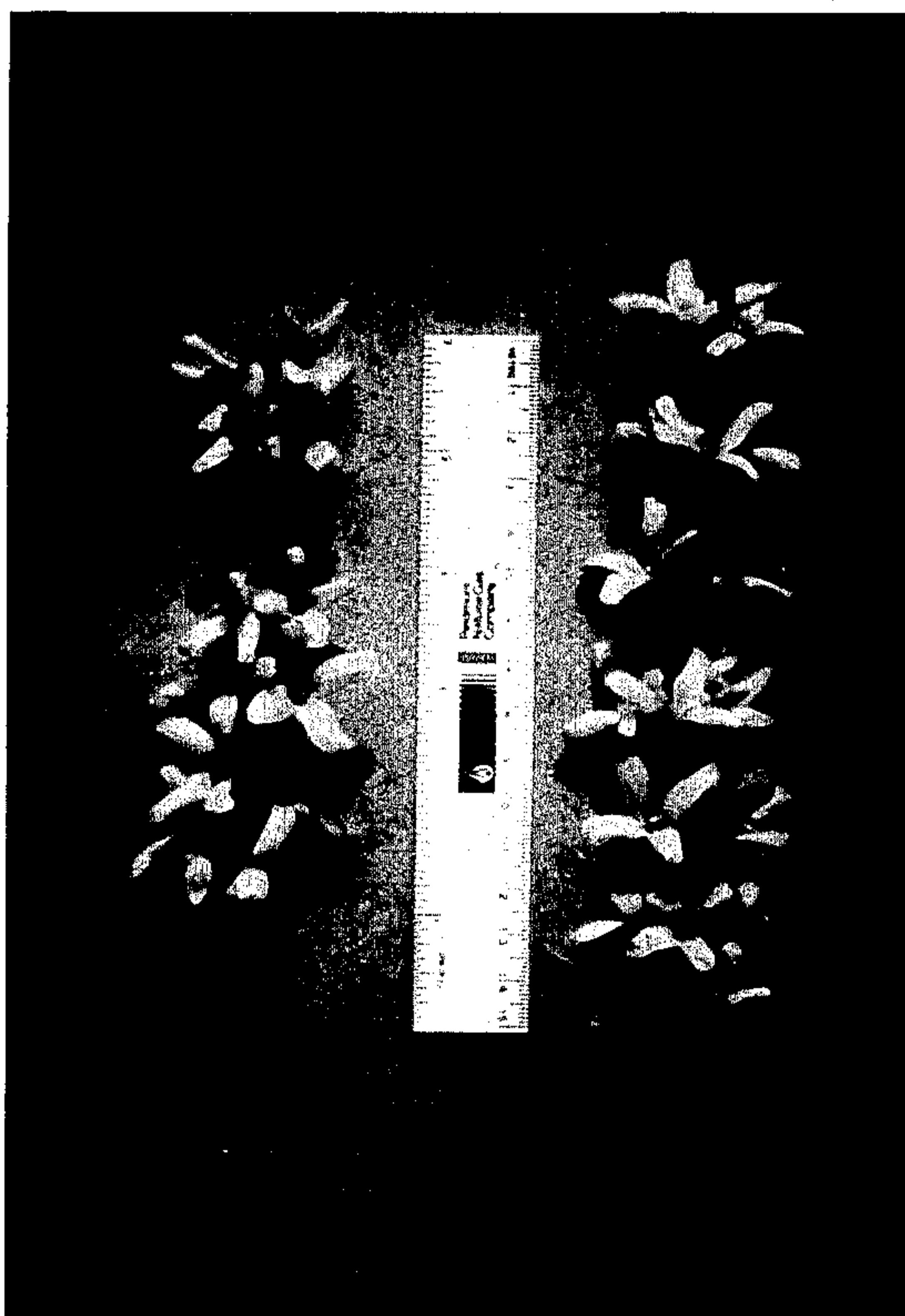


FIG 2

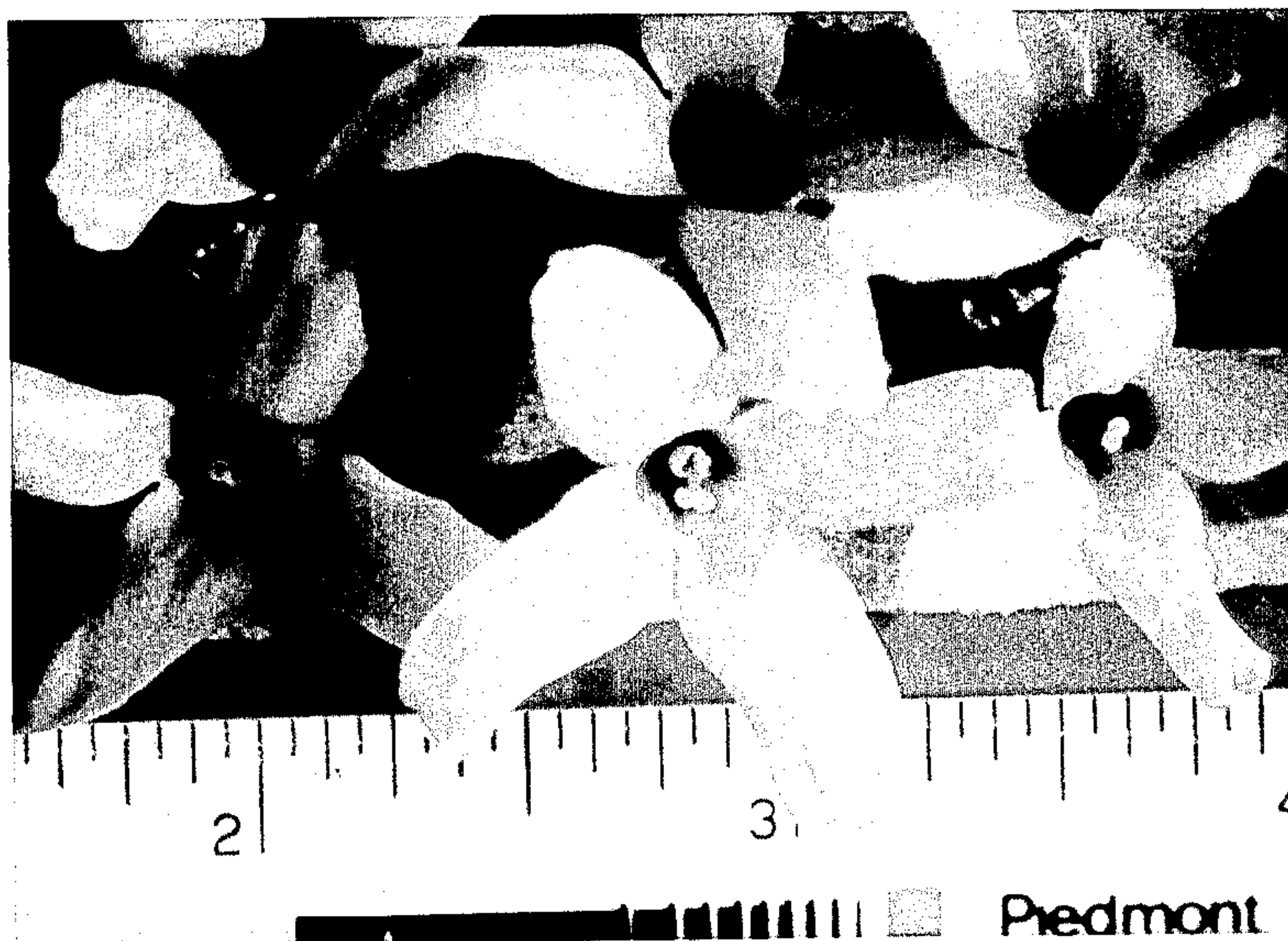


FIG. 3



FIG. 4



FIG 5