

(12) **United States Plant Patent**
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(54) **KIWI PLANT NAMED ‘AU AUTHUR’**

(50) Latin Name: *Actinidia deliciosa A. Chev.*
Varietal Denomination: **AU Author**

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(57) **ABSTRACT**

A new and distinct cultivar of the species *Actinidia deliciosa A. Chev.* is described. The parentage of this new cultivar is unknown, but it is most likely an open pollinated ‘Haywood’ as it was grown from seed collected from fruit purchased in a grocery store. The new cultivar is distinguished by a slightly later blooming and a bloom period that overlaps the bloom period of ‘AU Fitzgerald’ and ‘Hayward’.

6 Drawing Sheets

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RELATED APPLICATIONS

U.S. patent application Ser. No. 12/150,769, filed on Apr. 30, 2008, and entitled “Kiwi Plant Named ‘AU Fitzgerald’” is incorporated by reference herein.

Latin name of the genus and species of the plant claimed: *Actinidia deliciosa A. Chev.*

Variety denomination: ‘AU Author’.

BACKGROUND OF THE INVENTION

Kiwi plants in cultivation are dioecious deciduous vines that originated in China and parts of Asia. There are over 50 species in the genus *Actinidia*. The *Actinidia deliciosa* species originated in China and parts of Asia and is known as the Chinese gooseberry. Plant material of this species was taken to New Zealand where new cultivars such as ‘Hayward’ were developed. Due to the appearance of the fruit of the Chinese gooseberry, it was given the name kiwi fruit in New Zealand after the native kiwi bird. The kiwi plant is dioecious thereby requiring male pollinizers in the presence of the female plants to ensure fruit production.

‘Hayward’ is the most commercialized female kiwi cultivar grown and marketed in the world. The ‘Hayward’ cultivar is produced commercially in California in the U.S. and in New Zealand, and is the kiwi fruit most often found in U.S. grocery stores. Attributes of the ‘Hayward’ cultivar that have led to its dominance of the kiwi market in the past are its distinctive green flesh, good flavor and long storage life. It is not known what male cultivar was used to pollinate the female flowers that produced the fruit and seed that resulted in the new cultivar. ‘Mama’ and ‘Tomuri’ are two male cultivars frequently used for pollination in ‘Hayward’ plantings.

Many plantings of the ‘Hayward’ cultivar with ‘Matua’ and ‘Tomuri’ were planted in Alabama as well as the adjoining southeastern states. These plantings were established near the coast in most cases. The vines grew vigorously but were unfruitful because the female cultivar ‘Hayward’ did not pro-

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duce flower buds. The male plants produced flower buds and flowers. The ‘Matua’ cultivar bloomed earlier than ‘Tomuri’ in the plantings made in the coastal areas of south Alabama.

SUMMARY OF THE INVENTION

Mrs. A. A. Fitzgerald of Summerdale, Ala. purchased kiwi fruit from a local grocery store and planted some seeds from the fruit. She ended up with one female and one male plant that bloomed together, were very productive and matured a crop of quality fruit. The fruit purchased was probably from the ‘Hayward’ cultivar.

The present invention relates to a new and distinctive male kiwi cultivar of *A. deliciosa A. Chev.* The parentage of the new cultivar is unknown as it was grown from seed from fruit purchased from a grocery.

The new cultivar is able to be asexually reproduced as cuttings or by grafting or budding on to a seedling or cutting grown rootstock. The unique characteristics come true to form and are established and transmitted through succeeding asexual propagations. In the climate of central Alabama, vegetative bud break occurs during the last two weeks of March and the bloom period occurs during the last week of April and the first two weeks of May, depending on the climate during the season. ‘Matua’ generally blooms earlier than the new cultivar ‘AU Author’ and during the first ¾ of the bloom period of ‘AU Fitzgerald’ and ‘Hayward’. The bloom period of the new cultivar ‘AU Author’ begins just after ‘AU Fitzgerald’ and ‘Hayward’ and overlaps the major bloom period of the female cultivars. The new cultivar ‘AU Author’ peak bloom period occurs during the peak bloom period of the ‘AU Fitzgerald’ and ‘Hayward’ bloom period. ‘Tomuri’ blooms after ‘AU Fitzgerald’, ‘Hayward’, and the new male cultivar ‘AU Author’ in most seasons.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a photograph of leaves of the ‘AU Author’ cultivar. FIG. 2 is a photograph of flowers and leaves of the ‘AU Author’ cultivar.

FIG. 3 is a photograph of flowers and leaves of the ‘AU Authur’ cultivar.

FIG. 4 is a photograph of vines, leaves and flowers of the ‘AU Authur’ cultivar.

FIG. 5 is a photograph of a trunk, vines, leaves and flowers of the ‘AU Authur’ cultivar.

FIG. 6 is a photograph of vines, leaves and flowers of the ‘AU Authur’ cultivar.

DETAILED BOTANICAL DESCRIPTION

The new cultivar ‘AU Authur’ is a male with imperfect flowers. It has 40 or more stamens per flower and vertigial pistils. Characteristics of the new cultivar in which it differs from the standard kiwi cultivar ‘Matua’, includes slightly later blooming and a bloom period that overlaps the bloom period of ‘AU Fitzgerald’ and ‘Hayward’.

‘AU Authur’ is able to be asexually reproduced as cuttings or by grafting or budding on to a seedling or cutting grown rootstock. The new cultivar was asexually reproduced at the Chilton Area Research and Extension Center at Clanton, Ala., US. The instant plant was grafted on a rootstock named Bruno. ‘AU Authur’ has a vigorous growth habit similar to ‘AU Fitzgerald’ and ‘Hayward’ and blooms with these two female cultivars.

The distinctive characteristics of this new kiwi cultivar described in detail below have been observed in a replicated field experiment at the Chilton Area Research and Extension Center at Clanton, Ala., US. The plants were one year old rooted cuttings when planted. The ‘Matua’ and ‘Tomuri’ cultivars were evaluated in the same replicated field experiment and ‘Matua’ was used as the standard cultivar for comparison because in some years, ‘Tomuri’ bloomed after all other cultivars had completed the bloom period.

The table below illustrates the specific differences between the ‘AU Authur’ cultivar and the ‘Matua’ cultivar. The table utilized The Royal Horticulture Society’s Colour Chart (2001).

TABLE I

Comparison of ‘AU Authur’ and ‘Matua’ cultivars.		
	‘AU Authur’	‘Matua’
Plant		
Plant: sex expression	male (flowers imperfect)	
Plant: ploidy	hexaploid	
Plant: vigor	strong	medium
Young shoot: hairs	present	
Young shoot: density of hairs	heavy	
Young shoot: type of hairs	hirsute	
Young shoot: anthocyanin coloration of growing tip	absent	
Young shoot: anthocyanin coloration of leaf axil	absent	
Plant: average height and spread	plant is a vigorous vine trained and grown on a trellis (8'-16'). It is pruned multiple times during the season to contain the plant in its allocated space.	
Stem		
Stem: coloration of leaf axil	weak	

TABLE I-continued

Comparison of ‘AU Authur’ and ‘Matua’ cultivars.		
	‘AU Authur’	‘Matua’
Stem: diameter	medium	
Stem base diameter	mean 16.35 mm (range 15.5-17.1 mm)	mean 15.5 mm (range 13.75-17.74 mm)
Stem mid section diameter	mean 8.86 mm (range 8.57-9.4 mm)	mean 8.43 mm (range 7.55-9.74 mm)
Stem: dormant bud diameter	6.62 mm (5.41-7.81 mm)	7.12 mm (6.32-8.21 mm)
Stem color on upper side of shoot	light brown (N199B)	
Stem: character of bark	rough	smooth
Stem: hairs	present	present-light
Stem: conspicuousness of lenticels	conspicuous	
Stem: number of lenticels	medium 232 (174-297/sq cm)	medium 232 (174-303/sq cm)
Stem: color of lenticels	brownish-white	
Stem: size of bud support	medium-large	small-medium
Stem: visibility of bud (dormant canes)	almost buried	
Stem: number of hairs visible on bud (dormant canes)	medium	
Stem: leaf scar	Length (mm) 4.8 (range 4.1-6.3) Width (mm) 4.5 (range 3.9-5.2)	
Leaf (Mature)		
Leaf shape:	orbicular to broadly cordate	orbicular to obovate, occasionally reniforme (kidney-shaped, wider than long)
Leaf base shape:	cordate, lobes small and touching to slightly overlapping	narrowly cordate, lobes touching to slightly overlapping
Leaf tip shape:	round with a broad deltoid tip	broadly obtuse to somewhat refuse with broad cuspidate at tip
Leaf margin:	entire	
Leaf adaxial surface:	light-med green (147A), glabrous except for sparse, unbranched hairs on veins	
Leaf abaxial surface:	light green (147B), dense, stellate pubescence everywhere except along main veins which are densely tomentose with unbranched hairs	
Leaf length (cm):	18.5(15.9-23.1)[15]	16.8(13.6-20.5)[15]
Leaf width (cm):	15.1(12.5-17.9)[15]	14.1(12.0-20.8)[15]
Leaf ratio (l/w):	1.2(1.1-1.5)[15]	1.2(0.9-1.4)[15]
Leaf petiole length (cm):	5.6(3.9-9.9)[15]	4.2(3.3-6.3)[15]
Leaf 1° vein organization:	pinnate; veins terminating as small extended points or mucros at leaf margins	
Leaf 2° vein organization:	±parallel	
Leaf puckering:	weak	moderate
Leaf variegation:	none	
Leaf spines on lower leaf surface:	none	
Petiole:	N199B	
Pedicel:	149D	
Flower		
Inflorescence#:	mean 2.6 (range 1-4) [15]	mean 2.4 (range 1-4) [28]

TABLE I-continued

<u>Comparison of ‘AU Authur’ and ‘Matua’ cultivars.</u>		
	‘AU Authur’	‘Matua’
1° Pedicel length (cm):	4.0(2.0-6.2)[12]	2.6(1.4-3.3)[17]
2° Pedicel length (cm):	1.6(0.9-2.8)[16]	0.9(0.6-1.5)[18]
Pedicel pubescence:	minutely, densely tomentose, unbranched	
Sepal#:	5.4(3-7)[11]	5.3(4-7)[17]
Sepal color:	152D	rusty greenish
Sepal pubescence:	minutely, densely tomentose, unbranched creamy white	
Flower color:	10D	
Flower width (cm):	5.4(5.1-5.8)[10]	3.8(3.6-4.1)[12]
Petal orientation:	overlapping; sides reflexed	
Petal#:	6.8(5-8) [11]	6.0 (5-7) [14]
Petal length (cm):	2.4(2.2-3.0)[20]	1.9(1.6-2.1)[19]
Petal width (cm):	2.1(1.8-2.5)[20]	1.5(1.2-1.8)[19]
Petal ratio (l/w):	1.2(0.9-1.4)[20]	1.3(0.9-1.5)[19]
Petal arrangement:	overlapping	

TABLE I-continued

<u>Comparison of ‘AU Authur’ and ‘Matua’ cultivars.</u>		
	‘AU Authur’	‘Matua’
Style#:	average - 24 range (20-28)	
Stamen#:	average - 153 range (142-168)	
Anther length (mm):	2.0-3.0	
Chilling requirement hours:	<800	
Filament:	10C	
Anther:	21B	

What is claimed is:
1. A new and distinct variety of *Actinidia deliciosa* plant named ‘AU Authur’, substantially as described and illustrated herein.

* * * * *



Fig. 1



Fig. 2



Fig. 3



Fig. 4

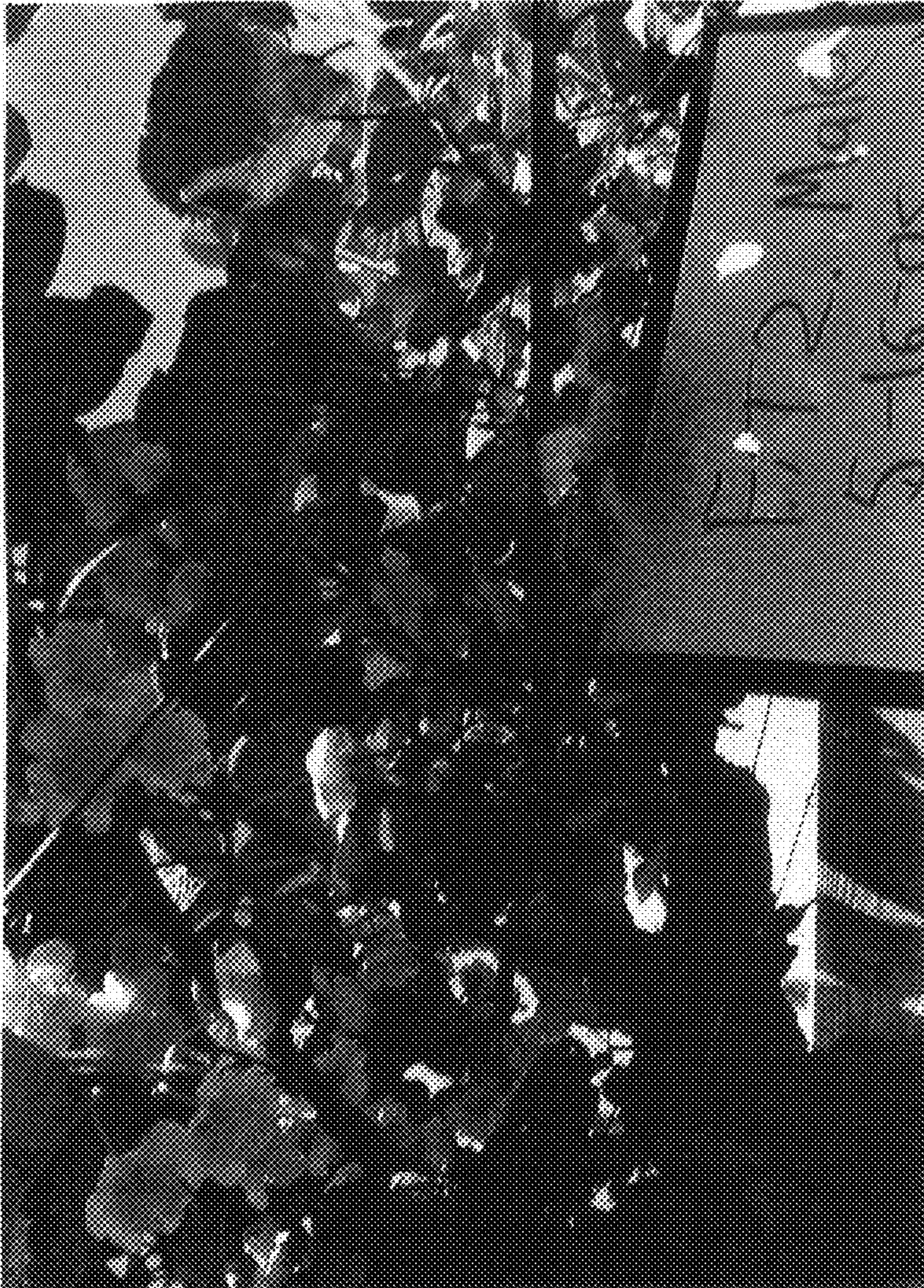


Fig. 5



Fig. 6