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United States Patent [19]
Kudo

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[54] APPLE TREE VARIETY NAMED ‘KANKI’
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[52] U.S. Cl. Plt./161
[58] Field of Search Plt./34.1, 161,
Plt./168

[56] References Cited
PUBLICATIONS
UPOV–ROM, Jan. 1998, Plant Variety Database, GTI Jouve
Retrieval Software. Citation for ‘Kanki’.
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Attorney, Agent, or Firm—Armstrong, Westerman, Hattori,
McLeland & Naughton
[57] ABSTRACT
A mid-season apple tree variety bearing fruit with a yellow
ground color and bright red overcolor overall, and a medium
flesh which is very juicy, moderately sweet and with low
acidity.

5 Drawing Sheets

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The present invention relates to a new and distinct variety
of apple tree which is a mid-season variety exhibiting less
fruit drop and less cracking than the ‘SENSHU’ variety, and
producing a dessert apple which is less acid than ‘SENSHU’.
This new and distinct cultivar was bred by Seiichi Kudo
in search of a variety which does not have the less desirable
characteristics of the ‘SENSHU’ variety. He crossed ‘SEN-
SHU’ with ‘TSUGARU’ in 1981. The following spring he
seeded one hundred seeds of the cross and developed one
hundred seedlings in his orchard (at No. 63, aza Izumida,
Ooaza Ishikawa, Hirosaki City, Aomori prefecture, Japan).
In 1988 he gathered the first crop from the seedlings. He
selected one tree which produced fruit of excellent eating
quality and few defects, less fruit cracking and less fruit
drop. For confirmation of the stability of the characteristics
of the seedling, he grafted the budwoods on other trees in
1989 in his orchard at the same location. Continued obser-
vation of the seedlings indicated that the characteristics of
the variety of the invention were stable, and were transmit-
ted without change through succeeding propagation.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographic illustrations show typi-
cal specimens of the foliage and fruit of the new variety. The
colors depicted are as true as is reasonably possible to attain
in color illustrations of this character.
FIG. 1 is a photograph illustrating buds, opened flowers,
foliage and stem characteristics of the plant;
FIG. 2 is a photograph showing typical bearing charac-
teristics of the plant, along with fruit, foliage, and stem
coloration of same;
FIG. 3 is a whole plant view;
FIG. 4 is a photograph of typical ‘KANKI’ fruit;
FIG. 5 is a photograph of ‘KANKI’ fruit as viewed from
the stalk cavity;
FIG. 6 is a photograph of ‘KANKI’ fruit as viewed from
the base;
FIG. 7 shows the fruit in cross-section; and
FIG. 8 is a photograph of the foliage, including petiole
and stipules.

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DETAILED DESCRIPTION OF VARIETY

The characteristics of the new variety ‘KANKI’ are as
follows, with color description provided according to the
Munsell Color Chart.
Botanical name: ‘*Malus domestica*’.
Tree: The tree is precocious and vigorous, of medium size,
tending to be bigger than ‘MIKI LIFE’ but smaller than
‘FUJI’, with spreading habit and production of many
lateral shoots and spurs. The branch density tends to be
less than that for ‘FUJI’ and higher than for ‘TSUGARU’
and ‘JONATHAN’. The angle of branches is as wide as
for ‘FUJI’; wider than for ‘OURIN’, but narrower than for
‘JONATHAN’, ‘JONAGOLD’, ‘TSUGARU’ and
‘MUTSU’. ‘KANKI’ tends to have more shoots than
‘FUJI’. ‘KANKI’ has stronger branches than
‘TSUGARU’, and tends to have fewer shoots than
‘TSUGARU’. The fruit of ‘KANKI’ is smaller and more
acid than the fruit of ‘TSUGARU’. Chemical treatment to
prevent fruit fall is necessary for ‘KANKI’ just as for
‘TSUGARU’. Light thinning is preferable for cultivation
of ‘KANKI’. Inducing lateral branches is necessary for
dense cultivation, whereas keeping long branches results
in less fruit bearing branches. Branches having wide
angles should be selected for cultivation, with short fruit
branches and medium fruit branches being preferred.
Production of lateral flower buds is limited.
Shoot: The shoot is of medium thickness and the internode
is of medium length (2.81 cm).
Leaves: The leaf is of medium size, the length/width ratio of
the leaf blade being medium. The leaf margin is wavy
with crenate serrations. The length of the leaf blade is
10.47 cm, the width is 7.31 cm, the petiole is long (3.40
cm) and thick (0.21 cm). The base of the petiole coloring
reaches up to the center of the costa (main vein) of the
reverse side of the leaf. The leaf color is dark green
(Munsell 7GY3/5). The color of the reverse side of the
leaf is dark yellow green. The stipule is elongated, with a
length of 0.57 cm.
Flower: The flower is larger than in ‘SENSHU’ with a
diameter of 4.59 cm. The unopened flower is of a strong
purplish color (Munsell 2RP6/12.5). The time of flower-
ing is midseason. Blooming starts around May 10, full
bloom being around May 15, and flowers falling around
May 18. ‘KANKI’ is not self-fertile. Fruit thinning is
required for inducing annual (versus biannual) bearing

and obtaining the disclosed fruit size. The fruits on the center of short, medium and long branches are kept. Picking one fruit in four terminal buds as for 'FUJI' is appropriate.

Fruit:

Shape.—The fruit is of medium size (approximately 293.3 g, 7.7 cm in diameter), which is almost the same as for 'FUJI', and is conical with crowning. The aperture of the eye is closed. The base cavity and the stalk cavity are of medium depth and breadth, more shallow and wider than in 'SENSHU'. The stalk (2.1 cm) is longer than in 'SENSHU', and of medium thickness without distinct swelling at the end.

Flesh.—The flesh is yellowish white, very juicy with moderately sweet taste (Brix 13.4) and low acidity (acid 0.342 g/100 ml). The flavor is medium. The firmness is medium, and the texture of the fruit is medium. Browning is very heavy. The mature fruit has no water core.

Skin.—Ground color is yellow. The over color of the skin is bright red which covers the base color. Before maturity when the coloring is light, stripes are clearly visible. After full coloring the stripes become less distinct. the base color remains around the base

of the stalk around the stalk cavity. The base color also remains around the calyx. The skin has medium small lenticels of medium density, has a scarf skin, is moderately shiny, with low greasiness, and is smooth without bloom. There is no cracking tendency of the skin.

Core.—Conical and small in size.

Seed.—Seeds are numerous and obovate, of medium size.

Resistance: 'KANKI' has good resistance to powdery mildew and Alternaria blotch, and has no or little tendency for moldy carpels.

Harvest season: September 25–October 5, which is 7–10 days ahead of 'SENSHU'. The time between blooming and harvest is about 139 to 149 days.

Storability: Moderate.

Use: 'KANKI' is a good variety of dessert apple.

I claim:

1. A new and distinct mid-season variety of apple tree named 'KANKI', substantially as illustrated and described herein, bearing fruit with a yellow ground color and bright red overcolor overall, and a medium flesh which is very juicy, moderately sweet and with low acidity.

* * * * *



Fig. 1



Fig. 2



Fig. 3

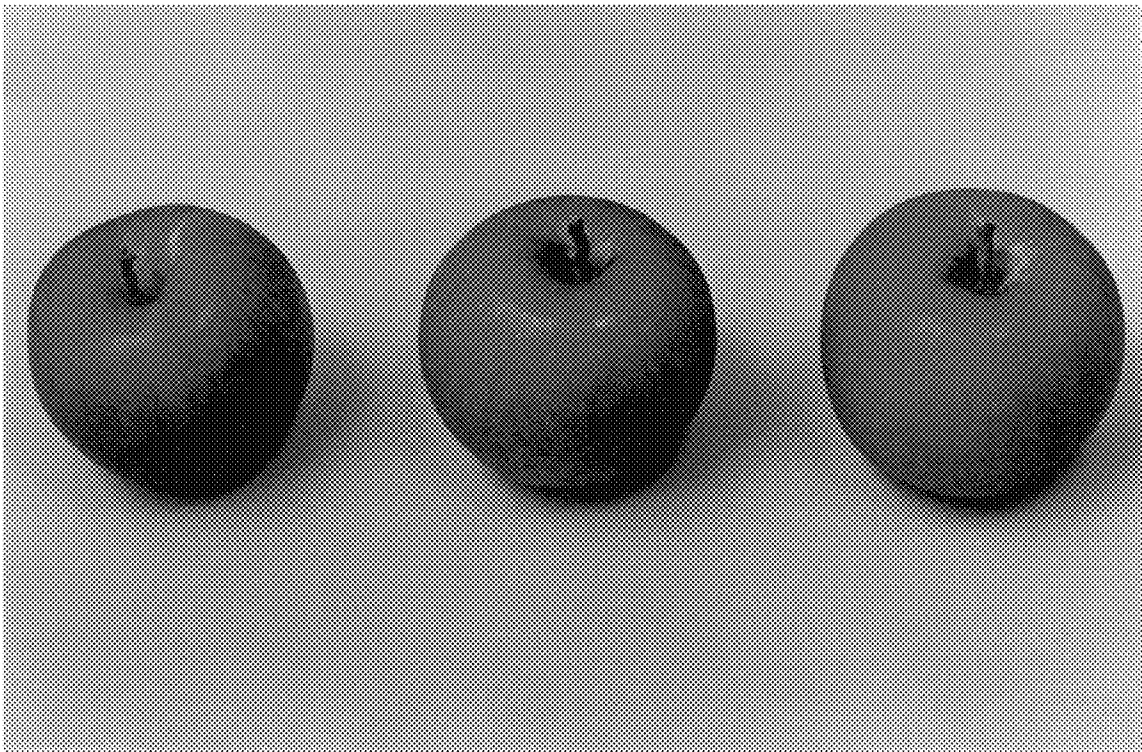


Fig. 4

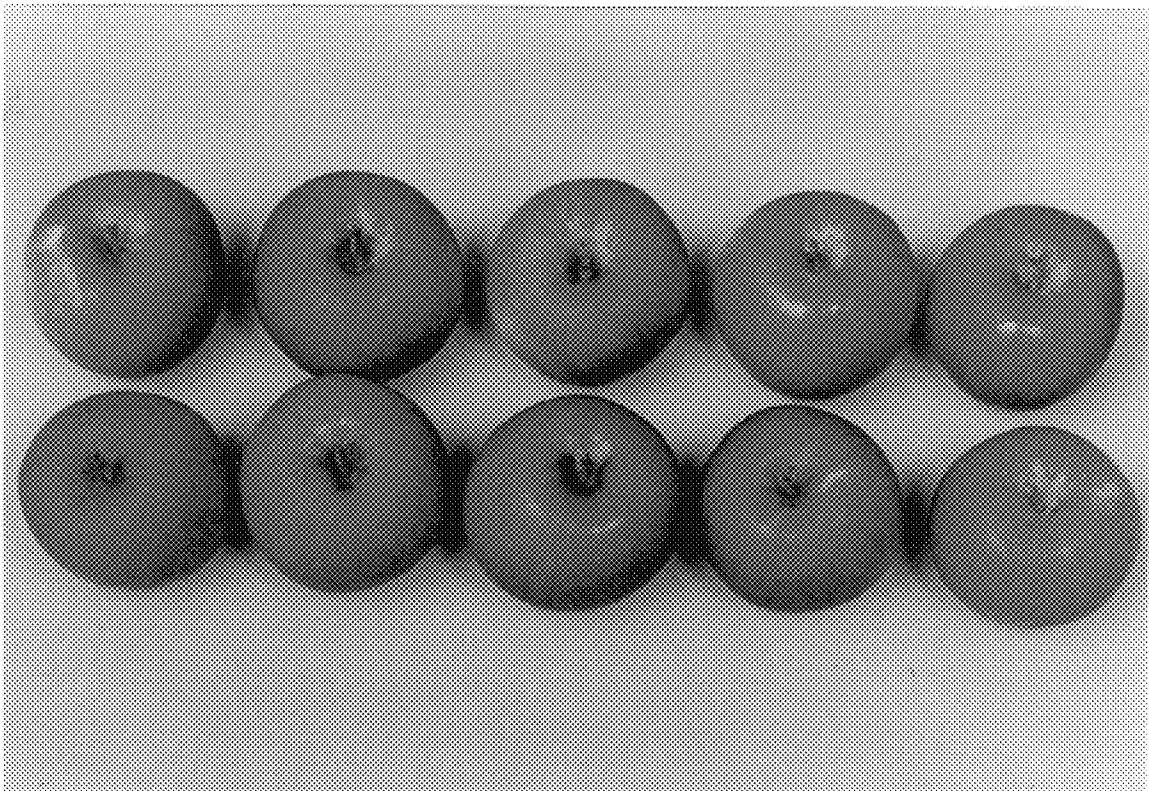


Fig. 5

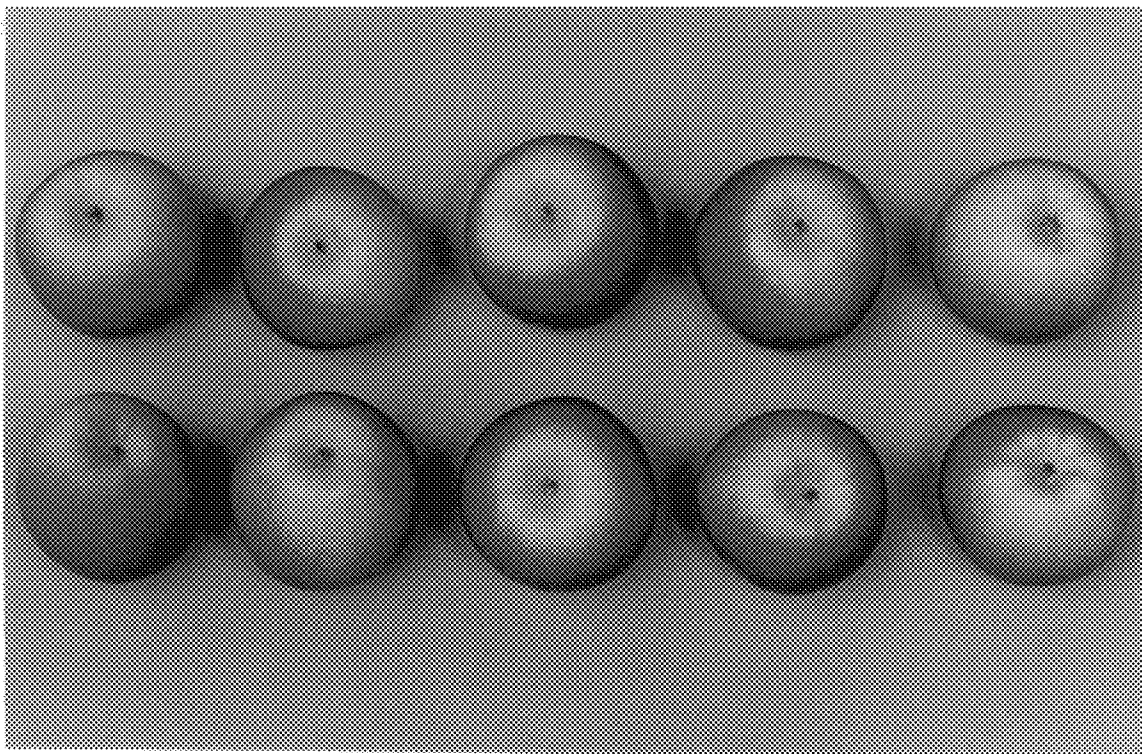


Fig. 6

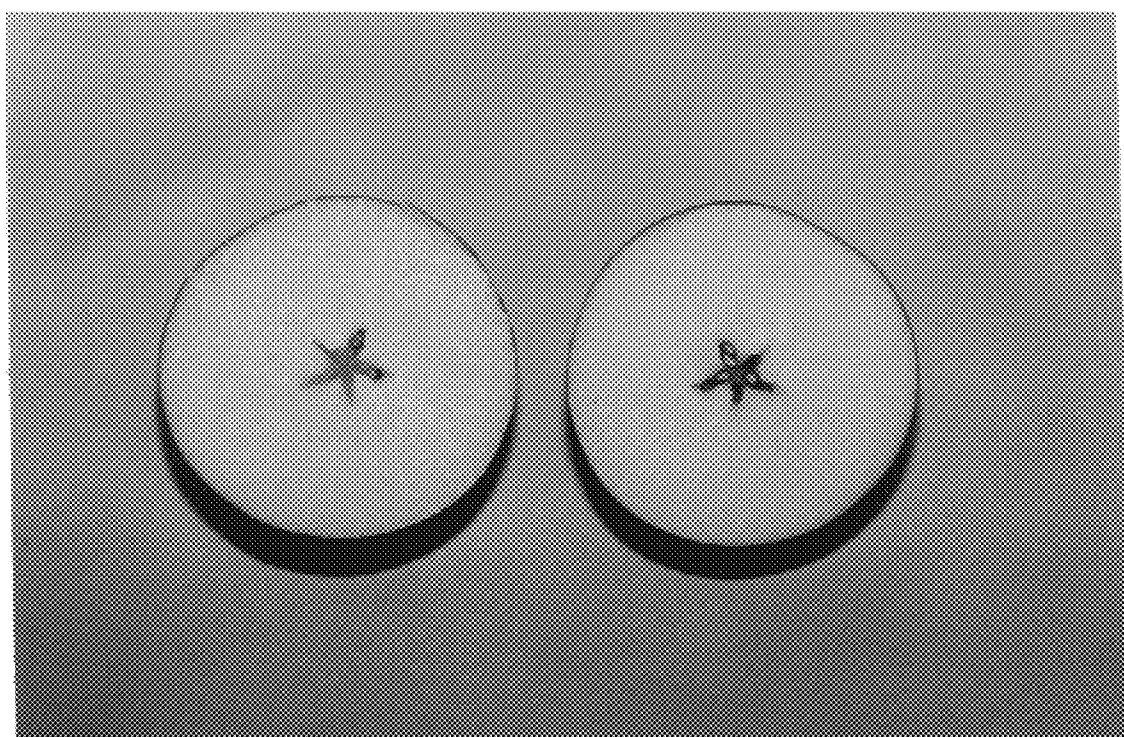


Fig. 7

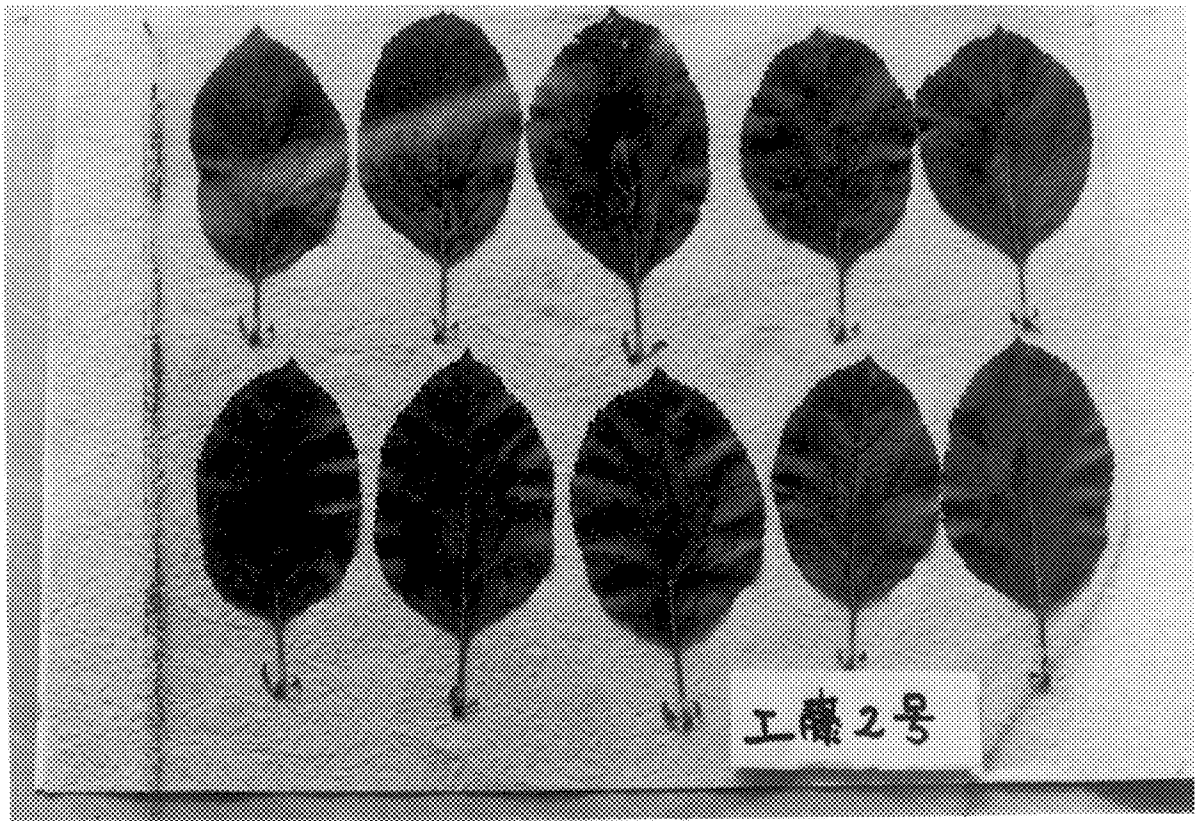


Fig. 8