

DOCUMENTED TREE

HAP-S-0000XX-TXX

Apple tree - Sample report

PROPERTY RESEARCH

Location
Sand lake, Rensselaer County

USDA Plant Hardiness Zone
Zone 5b · 2023 USDA map · recorded tree/site point

Project area
Sand lake heritage apple site

Observed
2026-09-11

1 Observation synopsis

At this Sand Lake heritage apple site in Rensselaer County, the candidate tree had a recorded trunk diameter of 9.41 inches (29.56 inches circumference) below the first branch. The tree occupied a grassy, partly open setting among other woody vegetation and had a low, spreading, densely interlaced crown. Its bark was deeply fissured and plated near the base; no distinct graft union was evident. The recorded crop load was medium, with significant apple drop at time of collection.

A five-fruit sample averaged 66.9 g, 53.6 mm in height, and 66.5 mm in diameter, giving a height-to-diameter ratio of 0.81 and a distinctly oblate form. The fruit had yellow-green ground color with a light pink-red solid flush, most apparent around the stem end; small dark lenticels and scattered superficial blemishes dotted the skin. Russet was medium around the stem cavity and absent or slight elsewhere. The calyx was closed, and fresh sections showed white flesh with a compact,

symmetrical seed cavity.

Soluble solids averaged 11.7 °Brix. Firmness averaged 9.97 kgf/cm² across five fruits, measured at room temperature on a GY-M30 penetrometer. The fruit was crisp and moderately juicy, with little mealiness and moderately tough skin. Flavor combined medium sweetness with high tartness, low bitterness, and medium astringency, suggesting honey, pear, spice, and green or grassy notes; aroma was weak and the finish short. After 60 minutes, the cut flesh had yellowed noticeably, consistent with medium browning.



Whole tree and surroundings

Quick facts

 Trunk diameter 9.409 in Recorded diameter	 Mean fruit weight 66.905 g Recorded observation	 Estimated biological age 35–50 years low confidence
 Mean fruit diameter 66.5 mm Recorded observation	 Firmness 9.966 kgf/cm ² n=5	

2 Findings and next steps

Suggested next steps

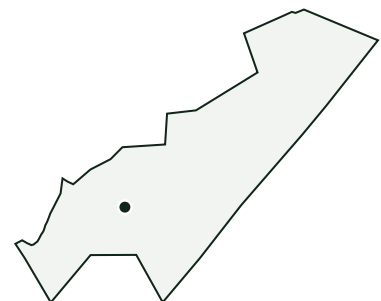
Need to return in the winter to collect some dormant scions. Final visit in the spring to document the flowers.

3 Documented location

Record	Value
Address	[Redacted]
Exact Coordinates	[Redacted]

4 Parcel and site information

Record	Value
Assessor Listed Owner	[Redacted]
Mailing Address	[Redacted]
Parcel Address	[Redacted]
Parcel Number	[Redacted]
Recorded Acreage	27.71



Assessor boundary sketch; documented site GPS shown as a point when within the sketch.

Unverified public assessment research. Assessor ownership may be outdated. This boundary is for planning only, not a survey, proof of current ownership, or permission to enter.

5 Tree record

Record	Value
Tree Status	Candidate

6 Field and tree measurements

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Characteristic	Value	Characteristic	Value
Observation Session	Mature fruit & eating quality	Observer	Sage Monast
BBCH Stage	87 · Fruit ripe for picking	Sample Count	5
Crop Load	Medium	Trunk Diameter	9.409 in (recorded)
Trunk Circumference	29.561 in (calculated)	Trunk Measurement Position	Just below the first major branch

Record	Value
Trunk Measurement Note	Diameter-tape reading was previously entered in the circumference field; corrected with owner confirmation on 2026-09-13.

Characteristics not recorded: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 49.

7 Mature fruit & eating quality

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#	Characteristic	Measurement	UPOV category
22	Fruit: weight	66.905 g	Not assigned
23	Fruit: height	53.6 mm	Not assigned
24	Fruit: diameter	66.5 mm	Not assigned
25	Fruit: ratio height/diameter	0.81	Not assigned
26	Fruit: shape	—	2 · Oblate
27	Fruit: ribbing	—	1 · Absent or weak
28	Fruit: crowning at calyx end	—	1 · Absent or weak
29	Fruit: ground color	—	5 · Yellow green
30	Fruit: hue of over color	—	2 · Pink red
31	Fruit: intensity of over color	—	3 · Light

7 Mature fruit & eating quality

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#	Characteristic	Measurement	UPOV category
32	Fruit: relative area of over color	—	3 · Small
33	Fruit: pattern of over color	—	1 · Only solid flush
34	Fruit: conspicuousness of stripes	—	1 · Absent or weak
35	Fruit: area of russet around stalk attachment	50 %	2 · Medium
36	Fruit: area of russet on cheeks	—	1 · Absent or small
37	Fruit: area of russet around eye basin	0 %	1 · Absent or small
38	Fruit: number of lenticels	—	Unable to assess
39	Fruit: length of stalk	15.95 mm	Not assigned
40	Fruit: depth of stalk cavity	15.45 mm	Not assigned
41	Fruit: aperture of calyx eye	—	1 · Closed
42	Fruit: depth of eye basin	9.45 mm	Not assigned
43	Fruit: width of eye basin	26.3 mm	Not assigned
44	Fruit: firmness of flesh	9.966 kgf/cm ² (calculated, n=5)	Not assigned
45	Fruit: main color of flesh	—	1 · White
46	Fruit: secondary color of flesh	—	1 · None
47	Fruit: extent of secondary color of flesh	—	N/A
48	Flesh: distribution of pinkish or reddish coloration	—	1 · None
50	Time for harvest	2026-09-08	Not assigned

Unrecorded characteristics: 51.

8 Individual fruit measurements

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Fruit	Status	Weight g	Height mm	Diameter mm	°Brix	Firmness kgf/cm ²
1	Measured	—	—	—	11.7	10.93
2	Measured	—	—	—	12.2	9.76
3	Measured	—	—	—	—	11.53
4	Measured	—	—	—	—	9.51

8 Individual fruit measurements

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Fruit	Status	Weight g	Height mm	Diameter mm	°Brix	Firmness kgf/cm ²
5	Measured	—	—	—	—	8.1
Average		— n=0	— n=0	— n=0	11.95 n=2	9.966 n=5

9 Sensory observations and field notes

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Characteristic	Value	Characteristic	Value
Crop Load	Medium	Tree height	Not observed
Canopy spread	Not observed	Flower Abundance	Not observed
Leaf Sample Size	5	Young Fruit Sample Size	5
Young-fruit diameter	Not observed	Soluble solids	11.7 °Brix
Starch index	Not observed	Acidity	Not observed
Titrateable acidity	Not observed	Sweetness	Medium
Tartness	High	Bitterness	Low
Astringency	Medium	Aroma Intensity	Weak
Aftertaste	Short	Flavor Tags	Honey, Pear, Spice, Green / grassy
Crispness	High	Juiciness	Medium
Mealiness	Low	Flesh Density	Not observed
Skin Toughness	Medium	Cut Browning	Medium
Use Tags	Fresh eating, Baking, Sauce, Cider	Sample Count Source	measured_fruit_rows
Observation Gps Status	copied_from_tree	Observation Latitude	[Redacted]

Record	Value
Observation Longitude	[Redacted]
Penetrometer	Skin is removed, room temperature, measures around the cheeks, penetrometer model GY-M30, probe diameter is 8mm
Condition Notes	Significant apple drop observed at time of sample collection.

10 Photographs

HAP photo protocol v1



Fruit growing on the tree

fruit on tree

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2026-09-11



Fruit growing on the tree

fruit on tree

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Fruit set with color card and scale

other

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2026-09-11



Side view — most colored side

fruit side

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2026-09-11



Stalk end

fruit stem

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2026-09-11



Blossom / calyx end

fruit calyx

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2026-09-11



Blossom / calyx end

fruit calyx

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2026-09-11



Lenticels with millimeter scale

other

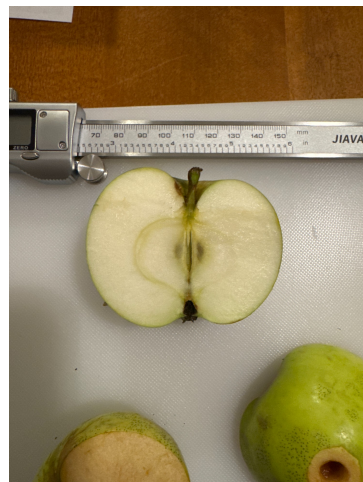
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Fresh equatorial cut

cross section
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2026-09-11



Fresh stalk-to-blossom cut

longitudinal section
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Browning — target 60 minutes

cross section
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Leaf upper and lower surfaces

leaf
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2026-09-11



Trunk, bark and graft union

trunk graft
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2026-09-11

11 Tree-age assessment

Interpretive assessment

Record	Value
Estimated Biological Age	35–50 years
Estimated Establishment Period	ca. 1976–1991
Confidence	low

Broad biological estimate based primarily on the trunk diameter, recorded below-first-branch, with visual assessment of mature bark and crown architecture.

12 Possible cultivar identification

Interpretive research / identification analysis. Provisional candidates are not confirmed cultivar identifications.

Provisional documentary comparison only; this evidence does not confirm a cultivar. The strongest current lead is Maiden Blush because the recorded 66.5 mm, oblate, yellow-green fruit with a light pink/orange flush, nearly white flesh, tart/subacid impression, and substantial preharvest drop align unusually well with the GRIN narrative. Its documented late-September season is later than the September 11, 2026 ripe/drop observation, so repeat phenology is important. Fall Russet is a useful second candidate for its close 65 mm and round-oblate reference fruit, but the photographed and recorded fruit do not presently show the predominantly russet skin expected for that name. Smokehouse and Rhode Island Greening are retained as credible, historically relevant alternatives that expose important size, color, ribbing, and season conflicts.

Maiden Blush • 76% trait compatibility

Leading provisional candidate. Its combined oblate form, yellow-green ground, blush, white flesh, subacid/tart character, and especially documented pre-ripe dropping behavior fit the present evidence better than the other consulted alternatives, although local maturity timing and smaller fruit size remain unresolved.

Trait	Recorded observation	Reference comparison	Assessment
Fruit diameter / size	Mean diameter 66.5 mm; mean weight 66.905 g.	Fruit described as above medium, 75 mm. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	partial
Fruit shape	Recorded oblate; mean height:diameter ratio 0.81; photographs are compatible with low-oblate fruit.	Oblate. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	match
Ground color	Recorded yellow green; photographs show predominantly yellow-green skin.	Yellow-green ground color. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	match

Trait	Recorded observation	Reference comparison	Assessment
Overcolor	Light pink-red, only solid flush; photographs show subdued pink to orange-pink areas rather than stripes.	30% orange blush. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	partial
Flesh color	Recorded white; fresh cut photographs show white to pale cream flesh.	Nearly white flesh. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	match
Flavor balance	Medium sweetness, high tartness, medium astringency; 11.7 mean Brix from available readings.	Subacid flavor. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	match
Fruit drop behavior	Significant apple drop was observed at the ripe-fruit sampling visit.	Fruits drop before ripe. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	match
Maturity season	Classified ripe for picking on September 11, 2026, with substantial drop.	Late September, two weeks before Delicious. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	partial
Calyx opening	Recorded closed; photographs show a closed-looking calyx.	Not stated in the consulted GRIN accession narrative. https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf	unknown

Record	Value
Synonyms	Lady Blush, Red Cheek, Summer Queen
Matching Characteristics	The accession narrative gives a 75 mm, oblate, yellow-green apple with orange blush, nearly white flesh, subacid flavor, productive/biennial cropping, and fruit dropping before ripe., The observed fruit is somewhat smaller but shares the reference's low-oblate geometry, yellow-green ground, blush rather than stripes, white flesh, and tart/subacid sensory direction., The specifically documented tendency for fruits to drop before ripe is a notably useful match to the September 11, 2026 field note of significant apple drop.
Conflicts	The recorded mean diameter of 66.5 mm is below the 75 mm reference size., The source places harvest in late September, whereas fruit was classified ripe for picking on September 11, 2026; this is a meaningful but not decisive phenology discrepancy., The observed overcolor is recorded as pink-red and light, while the reference calls it orange blush; photographs show some orange-pink transition, making this a partial rather than direct conflict.
Missing Evidence	Multi-year local harvest window and whether fruit routinely drops while still physiologically unripe., A standardized assessment of full-surface russet and wax/bloom at maturity., Reference-supported comparisons of stalk, calyx basin, lenticels, seed morphology, and leaf dimensions., Whether the tree demonstrates repeat biennial cropping across years.
Geographic Relevance	Moderate. The GRIN accession was received from Ellwanger and Barry, Rochester, New York, providing direct New York documentary relevance, but this does not establish origin at the Sand Lake site.

Record	Value
Phenology Relevance	Partial. The reference harvest is late September, while the site record on September 11, 2026 already calls fruit ripe and notes considerable drop. A 2-3 week discrepancy requires repeat observation.
Historical Relevance	Strong. The cultivar was first described by Coxie in 1817 and the GRIN record documents a Rochester, New York nursery source.

13 Sources / references

1. U.S. Department of Agriculture, Agricultural Research Service, National Plant Germplasm System; narrative attributed to R. D. Way. Plant Inventory No. 204, Part 1 — PI 589105, Maiden Blush accession narrative. 1991 narrative; digitized GRIN record
https://www.ars-grin.gov/npgs/pi_books/scans/pi204pt1.pdf

14 Documentation notes

Field characteristics follow UPOV TG/14/10 for structured comparison. This report is not a formal DUS examination or cultivar identification. Numeric measurements and UPOV comparison categories are independent. "Not assigned" means no comparison category was selected.