Strawberry

- New recommendation:
  - **Increase the N fertilizer rate from 150 to 175 lbs/acre.**
  - **Adjust the daily N fertigation rate accordingly.**
  - **Adjust K application timing without changing the K rate.**
  - **Modify footnotes for N and K.**
- Based on:
  - Agehara, S. 2021. Characterizing early-season nitrogen fertilization effect on growth, yield, and quality of strawberry. Agronomy 2021, 11, 905.
  - Agehara, S., and M. C. do Nascimento Nunes. 2021. Season and nitrogen fertilization effects on yield and physicochemical attributes of strawberry under subtropical climate conditions. Agronomy 2021, 11, 1391.

SUMMARY

New N recommendation – Monthly N rate and total-season input

	Preplant	Daily injection rate (lb/acre/day)								Low	Total
	(lb/acre)	Wk 1-2	Oct	Nov	Dec	Jan	Feb	Mar	Apr	content	(lb/acre)
Old	0–40	0.3	0.6	0.6	0.6	0.6	0.75	0.75	0.6	0.6–0.75	150
New	0	0	1.5–2.0	1.0–2.0	1.0–1.5	0.75–1.0	0.5–1.0	0.5–0.75	0.5–0.75	1.5–2.0	175

1) Preplant N: 0–40 lb/acre → 0 lb/acre (controlled-release N is optional for preplant N)
2) In-season daily N rate: 0.3–0.75 lb/acre/d → 0.5–2.0 lb/acre/d
3) "Low plant content" N rate: 0.6–0.75 lb/acre/d → 1.5–2.0 lb/acre/d
4) Total N rate: 150 lb/acre → 175 lb/acre

SUMMARY

New N recommendation – Footnotes

	Nitrogen injection rate (lb/acre/day)[z] Time period in the growing season[y]							Recommended total season amount (lb/acre)[x]
	Oct[w]	Nov	Dec	Jan	Feb	Mar	Apr	
Nitrogen[v]	1.5–2.0	1.0–2.0	1.0–1.5	0.75–1.0	0.5–1.0	0.5–0.75	0.5–0.75	175

[z] Based on double-row cultural system with beds on 4-ft centers.

[y] Planting date of October 1 and end-of-harvesting date of April 30. Totals may increase or decrease, depending on length of season. Strawberries can be planted as early as 25 September and harvested as late as the end of April in west-central Florida, depending on cultivars and market prices.

[x] These are the recommended total seasonal N amounts. Some growers on high-organic matter soils may do well with less than 175 lbs/acre N, and other growers on sandy soils, prone to leaching, may require slightly more, but rarely more than 200 lbs/acre. Extra seasonal N applications should depend on plant leaf or petiole sap testing, leaching rainfall, or extended-season needs.

SUMMARY

New N recommendation – Footnotes

	Nitrogen injection rate (lb/acre/day)[z] Time period in the growing season[y]							Recommended total season amount (lb/acre)[x]
	Oct[w]	Nov	Dec	Jan	Feb	Mar	Apr	
Nitrogen[v]	1.5–2.0	1.0–2.0	1.0–1.5	0.75–1.0	0.5–1.0	0.5–0.75	0.5–0.75	175

[w] Some growers may choose to omit N fertilization until 2 weeks after turning off the watering-in irrigation system, and some growers who double-crop may elect to cease fertigation late in the spring when the strawberry plants are removed, resuming fertigation when the double-crop is planted.

[v] Strawberry cultivars have differing N requirements early in the season. Growers should choose N rates within the ranges shown in the table for the different periods in the season, that are appropriate for the particular cultivar, and that will target 175 lbs/acre N for the season. The lower N amounts in the range are adequate for those cultivars with moderate N demand and would easily become too vegetative with excessive N. Other varieties have a greater N demand, especially early in the season. Rarely is more than 0.5 to 0.75 lb/acre/day N required in the last 60 days of the season when too much N can reduce fruit firmness and shipping quality under the warmer growing conditions.

SUMMARY

Proposed changes in K rates

	Preplant	Daily injection rate (lb/acre/day)								Low	Total
	(lb/acre)	Wk 1-2	Oct	Nov	Dec	Jan	Feb	Mar	Apr	content	(lb/acre)
Old	0–40	0.3	0.5	0.5	0.5	0.5	0.75	0.75	0.6	0.6–0.75	150
New	0	0	0.6–0.8	0.6–0.8	0.6–0.8	0.6–0.8	0.6–0.8	0.6–0.8	0.6–0.8	0.6–0.8	150

1) Preplant K: 0–40 lb/acre → 0 lb/acre (controlled-release K is optional for preplant K)
2) In-season daily N rate: 0.3–0.75 lb/acre/d → 0.6–0.8 lb/acre/d
3) "Low plant content" N rate: 0.6–0.75 lb/acre/d → 0.6–0.8 lb/acre/d
4) Total N rate: No change (150 lb/acre)

<u>Turfgrass</u>

- New recommendation:
  - **Do not apply P fertilizer to a turfgrass lawn unless the Mehlich 3-extractable P is less than or equal to 20 mg/kg**.
  - **Change the N fertilizer recommendation for a bahiagrass lawn: 1 to 2 lbs N per 1,000 ft^2 per year statewide**.
- Support: See Dr. Unruh's rationale in his summary "Turfgrass Nutrition: Soil Testing and Interpretation."