

# Re: Electric Farm Tractors

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- *From:* Dale E <[DaleE@xxxxxxxxxxxxxxxxxxxxxx](mailto:DaleE@xxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Tue, 21 Aug 2007 20:18:38 -0500
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Morris Dovey wrote:

Where did you get that? They need sufficient power and traction to move themselves and their largest attachment in sometimes wet fields, they need power to operate hydraulic systems, and they need power to drive equipment (balers, elevators, grain augers, planters, snow-blowers, sprayers,...) coupled to the PTO.

Yep. Big power:

John Deere 9020 Series Tractors offer a wide range in power choices with up to 500-engine horsepower. Choose 4-wheel-drive or track configurations. And an available 18-speed Automatic PowerShift Transmission helps put this incredible power to the ground. Add popular options like GreenStar" AutoTrac hands-free assisted steering for unmatched productivity.

9120 (280 hp)

9220 (325 hp)

9320 (375 hp)

9420 (425 hp)

9520 (450 hp)

9620 (500 hp)

9320T (375 hp)

9420T (425 hp)

9520T (450 hp)

9620T (500 hp)

[http://www.deere.com/en\\_US/ProductCatalog/FR/series/9020.html](http://www.deere.com/en_US/ProductCatalog/FR/series/9020.html)

Typically not more than 5 miles – but that number has been steadily increasing as the amount of land required to sustain a farm operation has risen. I don't know what a typical commute distance is, but will

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point out that there are significant differences between the machines you're comparing.

Uh, check my math?

640 acres = 1 square mile.

1 mile = 5280 feet.

5280 feet / 30 foot wide plow = 176 rows = 176 miles.

5280 feet / 40 foot wide plow = 132 rows = 132 miles.

Thanks to his John Deere 9520T Tractor equipped with the GreenStar" AutoTrac Assisted Steering System, a John Deere 61-foot air seeder, and running 24-hours a day, he was able to get approximately 3,800 acres seeded in a five-day period.

[http://www.deere.com/en\\_US/ag/equipment/new/tractor/customer-testimonial-index-9020-tractor.html](http://www.deere.com/en_US/ag/equipment/new/tractor/customer-testimonial-index-9020-tractor.html)

640 acres = 1 square mile.

5280 feet / 60 foot wide air seeder = 88 rows = 88 miles per 640 acres.

3800 acres = almost 6 square miles.

3800 acres / 640 acres \* 88 miles = 522.5 miles.

522.5 miles / (24 hrs \* 5 days) = 4.35 mph.

| They don't get used  
| at night very much so the charge cycle could be almost all night,  
| so no quick charging to reduce battery life.

Only at planting time when it's not unusual for tractors to be run all day and all night.

Come harvest time, it's the combines that are run 'round the clock.

At both of these times there is extreme pressure (on both people and machinery) to get a lot of work done in a small time window.

"running 24-hours a day, he was able to get approximately 3,800 acres seeded in a five-day period"