MANURE INJECTION
Scott Magnan's
Custom Service
scttmgnn@gmail.com

Initial Issues

- High flow from stock pump on tank required us to spread over 6 mph in order to drop application rates, resulting in mechanical failure's and uncontrolled application rates.
- We mounted a flow valve to control flow. With the stock pump, the main hose built pressure and blew off.
- Unable to see the injector, we broke points, and had issues knowing what the implement was doing.
- Application rate was difficult to calculate.
- Weight of the injector decreased tongue weight
- Loose bolts

Setup after initial test

- Reduced pump size- Cut horsepower requirement, kept main hose from blowing apart
- Flow valve- We can maintain a ground speed of 3-5mph, and adjust flow with this valve to control rate.
- GPS- Allows us to have a more professional looking, evenly applied field, and gives us the acreage per load, allowing us to quickly calculate GPA
- Camera- Having visual contact has saved on repairs, allows us to do a cleaner job, and know when the implement is up or down and if service is needed.
- Tank Balance- We slid the tank ahead to increase tongue weight applied to drawbar
- Routine Inspection- It is important to check the machine every day for loose bolts, worn points, ETC. The injector is a tool that requires more care than a broadcast spreader

N/A
0.0 mph
Field Name: SCOTTS F-2
Field Area: 0.00 a
Productive Area: 0.00 a
Coverage: 0.00 a
Nudge: 0"
Imp. Width: 12' 05"
Overlap: 0"
Storage: 310.2 hrs
Status
Settings
View
Field
Map B Point
Guidance
Mapping
CASE IH
FM-750

Pros/Cons

PRO'S

- Allows us to spread in urban area's
- Rate control
- Nearly eliminates odor
- Buries nutrients in the soil
- Leaves surface dry to perform additional field practice.
- Adds professionalism

CON'S

- Takes 10-20% more time
- Plugs if the pit has objects other than Manure, a problem that happens commonly if the pit is nearly empty.
- Implement cost or custom hire expense
- Some disturbance to a true no-till field or meadow
- Requires more service time than broadcast spreading

Management comparison

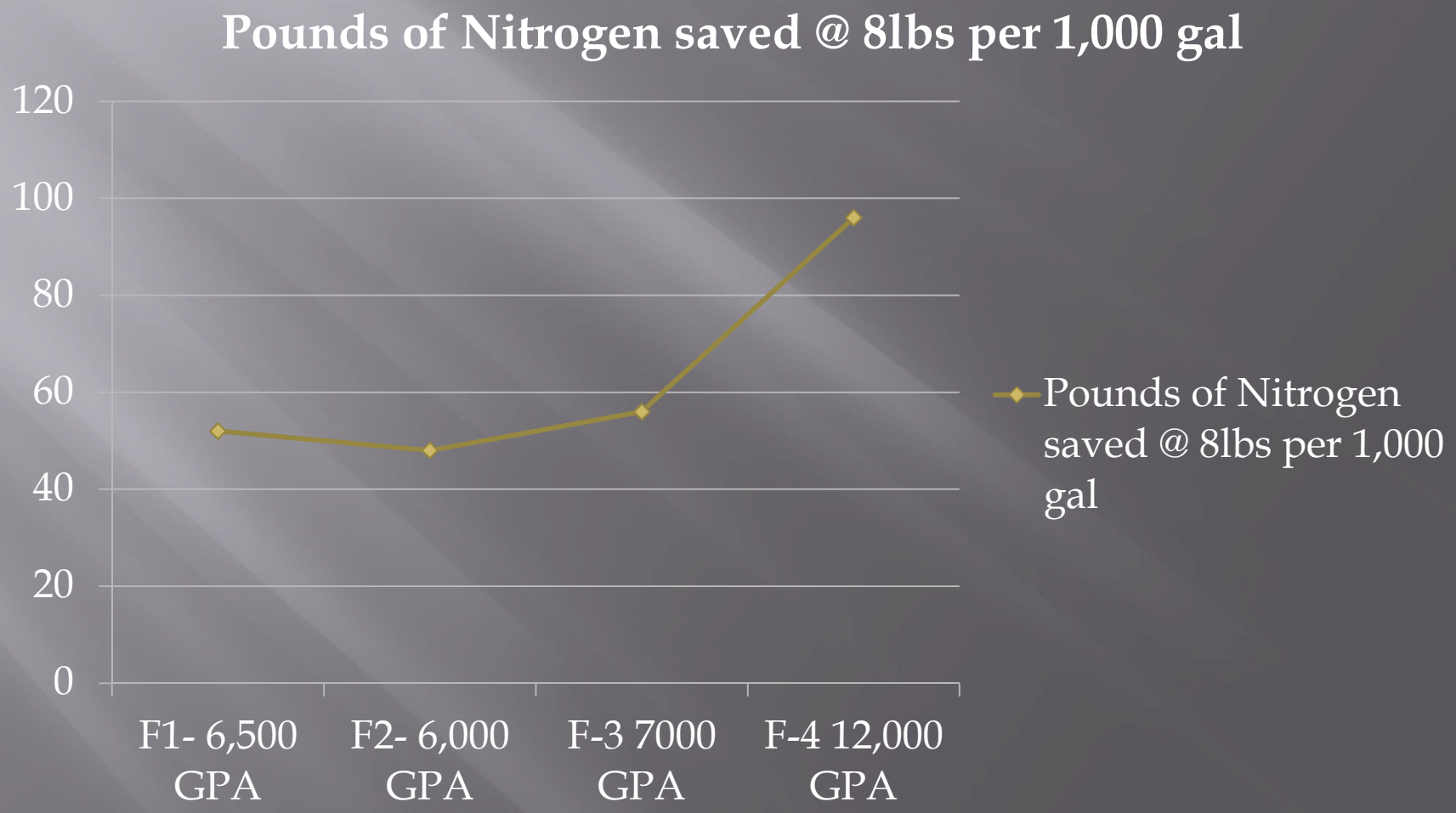
Farm 1- (Spring) 55 acres we injected from nurse trucks in the field, Farmer followed us on the same day with a primary tillage pass, We were able to spread in a field near camps that had not been covered is recent years.

Farm 2- (Spring) 8 acres Injected into a field directly from the pit that was later no-till planted into corn

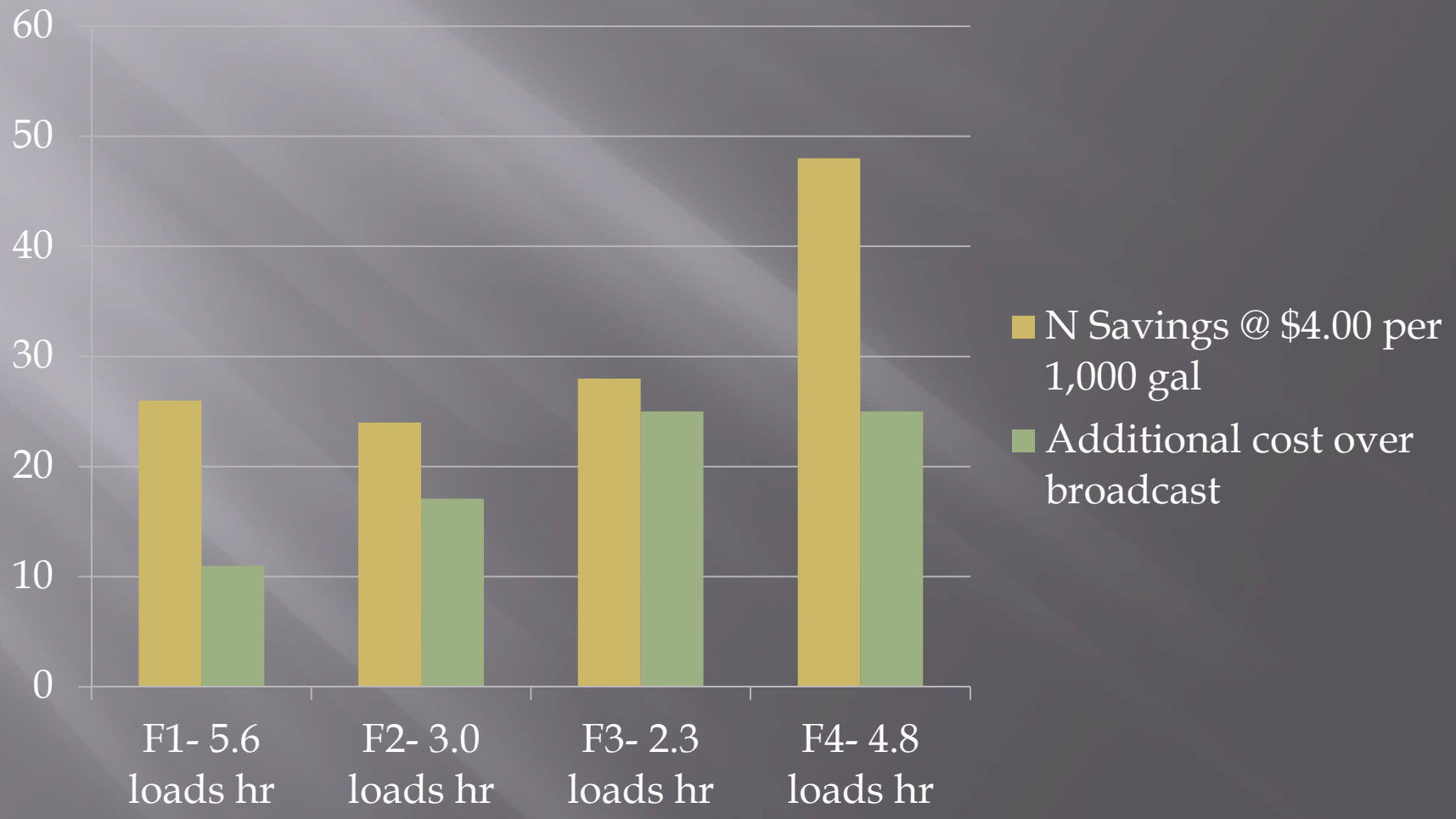
Farm3- (fall) Spread into 88 acres near the farm, directly from the pit. The farmer later made a primary tillage pass

Farm-4 (fall) 214acres mostly transferred in the field with no additional tillage. The farmer has the option to do conventional, reduced till or no-till this spring.

Estimated Nitrogen saving per acre



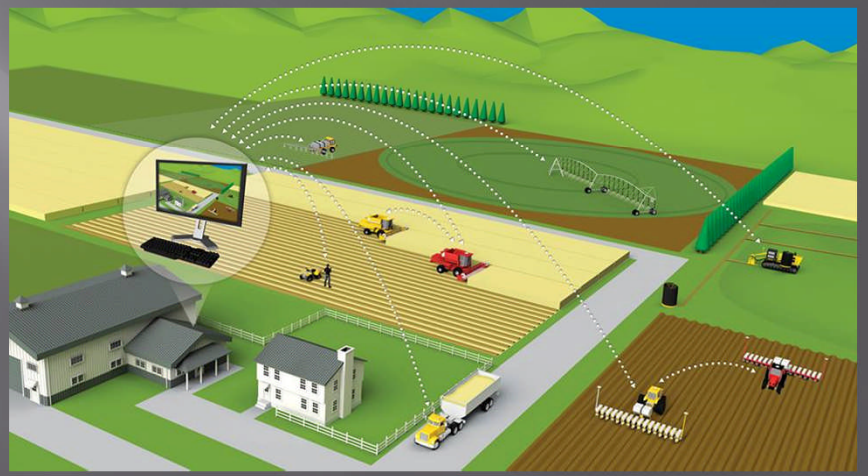
Estimated N savings vs additional cost comparison



Future goal- injection into hay

This field was being rotated into soybean. Replacing the closing discs which did most of the damage in this photo, may be trialed this summer. Complete alternatives to this system may be necessary.

Future goal- Using GPS software to record field application history



FINALLY
IF YOUR FIELD IN DEFICIENT IN IRON

We have a solution

Tractor and truck injection

Thank you to all the farmers in region for your willingness to try something new and except risk. To the UVM extension agents and service providers for your knowledge and support. Together we are making strides toward a greater understanding of practices that may help us remain sustainable, profitable and competitive.