

CFLAG Pasture School

May 13<sup>th</sup>-14<sup>th</sup>, 2026

# Equipment for Small Farms: Is it Worth the Purchase?

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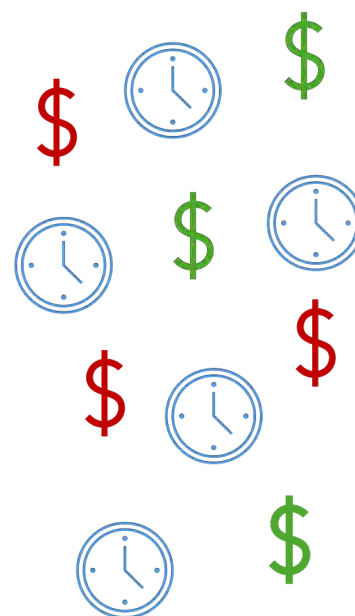
UF/IFAS Range Cattle Research & Education Center

UF/IFAS photo: Tyler Jones

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## Let's define a "small farm"

- Relies on off-farm income as primary income source
- Primary labor source is you and/or family
- Annual gross farm income is <\$250,000 (USDA – NIFA, 2026)
- Do not usually have the advantage of economies of scale
  - Being able to spread fixed costs over more production
  - Example: investing in top-of-the-line working pens or livestock trailer for 10 cows vs. for 200
  - Example: purchasing a 150+ HP tractor vs. 60 HP tractor



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## "Limits" of a small farm

*not limiting in terms of success, but limiting in terms of resources*



Knowing this, we want to do everything we can to maximize the resources we do have to be as efficient as possible on our operations.

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## What do you do on your small farm?

- Knowing your goals and capabilities helps in knowing what tools you need to meet those goals **realistically & economically.**
- Livestock production?
  - Pasture management – establishment, fertilizing, spraying, mowing, dragging, planting winter annuals
  - **What equipment do I need?**
- Hay production?
  - Establishment, fertilizing, spraying, mowing/cutting, raking, baling, hauling
  - **What equipment do I need?**



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**What equipment do I need?**

- Pasture Management for Livestock Production
  - establishment, fertilizing, spraying, mowing, dragging, planting winter annuals
- **Equipment:**
  - Tractor, fertilizer spreader, spray tank & booms/, drag, no-till drill

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**What equipment do I need?**

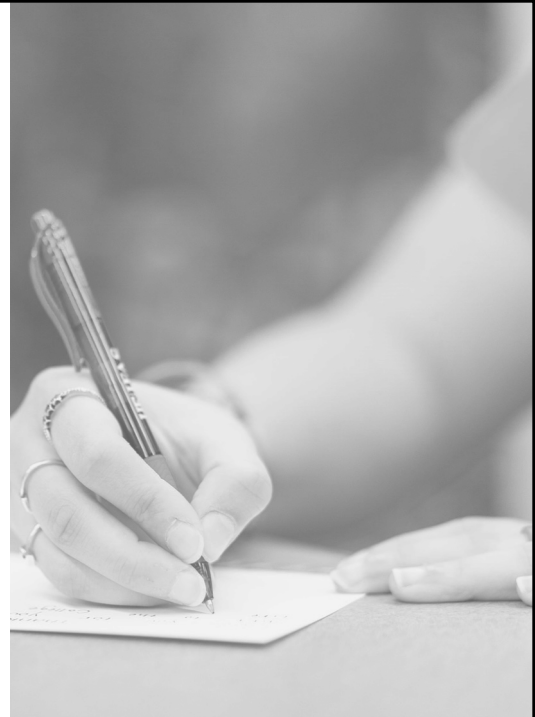
- Hay production?
  - Establishment, fertilizing, spraying, mowing/cutting, raking, baling, hauling
- **Equipment**
  - Tractor, fertilizer spreader, spray tank & booms, no-till drill, mower, tedder, rake, baler, hay trailer/wagon, storage

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## What is needed to do this well?

- “Well” → economically & efficiently
- **Do I need to own this equipment?** Could I hire this out or rent the equipment?
- If I need to own it, how do I select the best option?
  - Can it be used for multiple tasks to spread out the cost of the purchase?
  - How often will I use this piece of equipment?
  - Tractors – what HP do I need? What implements will I be using?
  - **How much time do I have? (efficiency + reason)**
  - **What makes sense for my budget?**



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## Tractor Uses

- **Likely justifiable because it can be used for various tasks throughout the year**
  - Tax purposes – depreciation method dependent on % use for the business
- **Makes certain tasks a little easier**
  - mowing, spraying
  - goes back to how much time you have
- **How do you pick the best one?**
  - New, used, HP, features, implements needed, etc.




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## Tractor Purchases

- Highly dependent on implements & use, not just acreage
- Consider buying used over new
- **Identify the “largest” task and pick a suitable tractor based on that**
  - Mechanical issues from not having enough HP will be expensive to repair
- **From Cornell Small Farms Program:**
  - ★ • **20–40 HP:**
    - Suitable for small vegetable operations, orchards, farms under 10 acres
    - Good for mowing, light loader work, light hauling, seeding tilling and cultivation.
  - ★ • **40–70 HP:**
    - Versatile for diversified farms, livestock operations, and hay producers covering 10-25 acres
    - Handles heavier implements like plows, discs, planters, seed drills, hay conditioners, square balers or post-hole augers.
  - **70 HP and above:**
    - Best for farms with more than 25 acres
    - heavy field tillage, large-scale hay production, loader/backhoe work, or implements that demand high lift or pull (category 2 or 3 hitch).

<https://smallfarms.cornell.edu/2026/01/finding-the-tractor-that-fits-your-farm/>

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## Tractor Purchases

- 20-40 HP Tractor:
  - Range from \$ 15,000 - \$40,000+
- 40-100 HP Tractor:
  - Range from \$35,000 - \$75,000+
- 100+ HP Tractor
  - 6 figures
- Prices vary greatly - dependent on model, features, & used or new
- UTV/ATV: \$5,000 - \$30,000+
  - Would this be a better option if I don't need to plant/mow or have only a few acres?
  - Can spray and fertilize using these with the right set up
  - **Calibration is key to application being effective**

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## Implement Uses

- Can be justifiable if they:
  - Are used consistently & repeatedly
    - Example: no till drill for planting winter annuals
  - Are needed – nothing else can get the job done
  - Make more sense to purchase than outsource
  - They increase returns to the operation by increasing production
    - Example: fertilizer spreader
  - Save you time to do other tasks to increase production
    - Example: bigger spray tank with longer booms for a tractor rather than UTV/ATV



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## Implement Purchases



- **Consider buying used over new**
- Talk to other producers/industry leaders who may have advice on one piece of equipment over another
- Seek out loan programs for small/beginning farms
- What do you have already that may be a good starting point rather than "jumping all in?"
- **Know your plan for using the implement – do you need it for a one time task or will it be consistently used to justify the cost?**
  - Post hole auger vs. Fertilizer spreader
- Financing options?
- What will be the maintenance of the implement?
- Do I have somewhere to house it?

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## More to it than just the purchase price...

- Maintenance & Repairs
- Who is going to be using it? You or an intern...
- Where will you house it?
- Depreciation/Tax Implications
- How often will I use it?
- **Is it a good investment in the success of your operation?**
  - If no, you have other options!



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## Outsourcing Services Examples

- Renting Implements?
- Average estimate for establishing Bahiagrass pasture = \$1,250/acre
  - Includes prep, planting, and fertilization after emergence
  - Will depend on acreage, more acreage usually means lower cost per acre
- Hay Production: buy or produce?

Options	Cost	Considerations
Purchasing (AL Hay Report, 4/30)	Premium Bahia: \$133/ton or ~\$52/800-lb bale Premium Bermuda: \$166/ton or ~\$66/800-lb bale	What is the quality? Could I produce the same quality at a lower cost? How much hay do I need?
Custom Baling	<b>\$30/bale</b> <i>Highly dependent on acreage &amp; bale wt.</i>	<b>Nutrient Removal</b> <b>still have to fertilize, spray, etc. to produce the hay</b> <b>Do I already have the equipment?</b> <b>How much hay do I need?</b>
Producing On-Farm	~\$40-\$60/bale	Nutrient Removal Do I already have the equipment? How much hay do I need?

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## Takeaways

- Know the goals AND capabilities of YOUR operation
  - What is realistic based on the resources you have?



- What equipment would help you best meet your goals?
  - Increases production
  - Optimizes time
  - Economically makes sense



- What are my options for obtaining the equipment I need?
  - Purchasing?
  - Outsourcing?
  - Renting?



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# QUESTIONS???

MAY GOD BLESS YOUR STEWARDSHIP!

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