SMALL FARM GUIDE TO SELECTING AND PURCHASING EQUIPMENT

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OUTLINE

- Introduction
- Asking the right questions
- Doing your research
- Sources of equipment
- Look before you buy
- Resources
INTRODUCTION

Goal Statement:

To assist small and beginning farmers to select and acquire safe and appropriate agricultural equipment that will increase their likelihood of successfully meeting their personal and production goals.
ASKING THE RIGHT QUESTIONS

- What are my long-term goals?
- Why do I need or want equipment?
- What enterprises will I pursue?
- What activities are time sensitive?
- How much money do I have to invest?
- Do I have alternative?
- What size do I need?
- Who will service or maintain the equipment?
- Who will use the equipment?
WHAT ARE MY LONG-TERM GOALS?

- Why am I farming?
- How long do I plan to farm?
- Alternative uses of my equipment?
WHY DO I NEED OR WANT EQUIPMENT?

- To keep up with the neighbors
- Pride
- Time restraints
- Physical limitations
WHAT ENTERPRISES WILL I PURSUE?

- Vegetables
- Row crops
- Hay
- Orchard
- Livestock
- Wood lots
WHAT ACTIVITIES ARE TIME SENSITIVE?

- Hay production
- Crop spraying
- Planting
- Harvest
ALTERNATIVES?

- Custom hire
  - Timing?
- Manual Labor
  - Access to responsible workers
- Small implements
  - Walk behind products (tiller, hand sprayer, push planter, etc.)
WHAT USES?

- Accessories
- Annual usage
- Exposure to elements
  - Medical restrictions
  - Application restrictions (pesticide application)
WHO IS GOING TO USE IT?

- Do I and/or employees have experience with farm equipment?
- Younger / older workers
- Do I and/or employees require any special considerations, such as disabilities, when choosing machinery?
ACCESSIBILITY

- Do I and/or employees require assistive devices?
- How difficult will it be to mount/dismount the tractor?
- Does the tractor have steps? If so, is the step height manageable?
- Does the tractor offer sufficient visibility for the tasks you wish to perform? If not, what can be done to decrease blindspots?
WHAT SIZE WILL MEET MY NEEDS?

- Horsepower demands
- Accessories to be used
- Weight
- Constraints
- Wheel Spacing
- Hydraulic capacity
ECONOMICS

- What is my availability to cash?
- Will new or used equipment better fit my budget?
- Do I have storage?
- Have you budgeted for maintenance and/or normal operation costs of machinery?
COST OF ALTERNATIVES

- New?
  - Deals and Incentives
- Used?
- Own vs Lease
- Custom hire?
  - Purdue University survey of Indiana Farm Custom Hire Rates [Link]
WHO WILL SERVICE OR MAINTAIN EQUIPMENT?

- Do I have the mechanical skills?
- Do I know people who do?
- Can I afford dealer services?
- What are the consequences of equipment being down?
DO YOUR RESEARCH

- Cost of accessories
- Cost to operate
- Experience of others
PURCHASE SOURCES

- Dealers
- Private party
- Auction
- Big box stores
DEALERS

- Dealers can be an excellent resource of information, guidance, a place to view products.
- Financing options are available.
- It is necessary to keep in mind dealer motives.
PRIVATE PARTY

- Front yards
- Magazine listings
- Current owners are a good source to understand equipment history involving maintenance, repairs, problem areas.
- Most people are honest, but the responsibility is yours to make an objective decision.
Auctions gather many buyers and sellers in one location.

Good purchases can be made with this buying format.

Risk is greatest with this buying format, sight unseen is not advised.

Implement history is sometimes unknown, therefore it is the buyers responsibility to make an informed decision before bidding.
BEFORE YOU BUY

- Learn machine history
- Where it came from?
- What it was used for?
- Maintenance records? (professional / self-serve)
- Known Issues?
- Accident history?
- Clear ownership?
WHAT TO LOOK FOR (TRACTORS)

- Fluids
- Leaks
- Smell
- Appearance
- Crackle test: detects water in oil up to 500ppm (0.05%) depending on type of oil
WHAT TO LOOK FOR (TRACTORS)

Hitch Type:

- Hitch Categories (0,1,2,3)
- 3-point hitch, 2-point hitch (older)
- Quick hitch accessories
WHAT TO LOOK FOR (TRACTORS)

- Belts: cracks, wear
- Hoses: cracks, leaks, rub locations
- Clutch: engagement, travel, smoothness
- Gears: engagement, disengagement, excessive movement, all present?
- Live PTO?
WHAT TO LOOK FOR
(TRACTORS)

- Structure: noticeable welds/repairs
- Battery: age, corrosion
- Wheels: noticeable bend/wobble, “test drive”, fluid/ballast? (if yes, rim rust?)
- Tires: cracks, cuts, wear, common size?
WHAT TO LOOK FOR (TRACTORS)

- Accessories included: or previous uses (dairy farms and/or loader tractors commonly have increased wear)
- Zerk fittings: do they appear to have been used?
- Safety equipment: ROPS, seatbelt, SMV, lights, guards
- Cab: do the instruments work?, AC should be around 40 F
WHAT TO LOOK FOR
(MACHINERY)

- UTV
- Post hole digger
- Mower
- Tiller
- Sprayer
- Box scraper/grader blade
- Front loader
- Planter/seeder
- Trailer
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TAKE SOMEONE WITH YOU

- A friend or family member with implement knowledge is a great asset!
- There is strength in numbers
- Avoid pooling your ignorance with others
- Don’t be snookered!
SOURCES OF ADDITIONAL INFO

- UC Davis Extension: Small Farm Program  (Link)
- University of Missouri: Beginning Farmers  (Link)
- HobbyFarms.com : Tractor shopping guide  (Link)