

# Planning Tips for Irrigated Pasture

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As more people make their home in Arizona the number of homes on small acreages is increasing. Many people would like irrigated pasture where they can raise their horses, cattle or other types of livestock. However, many lack the experience and training to establish and manage irrigated pasture. Poor planning and unrealistic goals can limit their success and enjoyment. This article provides an outline of what may be needed to successfully establish and manage irrigated pasture.

## SET YOUR GOALS

Realistic goals are critical to success, so make a list of goals to be accomplished. The key is to identify goals up front. Here are a few examples of questions to help in identifying your goals.

- What kinds of animals do you want and how many will be grazed?
- Do you want to produce hay or just graze?
- Are you expecting to make a profit on your property and/or from your livestock?
- Are aesthetics such as vistas and seclusion important to you?
- Are you concerned about use of non-native vegetation?
- What will you use your property for; 4-H projects, riding or roping arenas, or just raising livestock?

## TAKE AN INVENTORY OF YOUR PROPERTY AND PERSONAL RESOURCES

Walk your property and make a map. Then develop a list of property resources, personal skills and other resources that you have access to. The key is walking your property and determining what you have.

- How much land do you have and are you able to irrigate it, or is it native range?
- What are your property boundaries? Is the property close to roads and easily accessible?
- Will you live on the property or will you have to drive to it for all work?
- Are there any legal restrictions on your property, such as easements?
- What are your neighbors doing and will your goals coexist?
- What facilities currently exist on the property: are there buildings, fences, corrals, wells, electricity, septic tanks, pipelines or irrigation systems?
- What are your water resources, both domestic and for irrigation? Do you have irrigation rights or an irrigation decree? What is the source – pumped from a well or from an irrigation canal? What is the delivery schedule? How is it delivered to your property and how long is the water available for irrigation? What is the available flow, and is it dependable?
- Do you have existing fields or pastures? What are the capabilities of soils, topography, and vegetation? What are the typical plant growth

patterns in your area? The answers to these questions directly impact what type of pasture you can sustain.

- What are the historic weather and climate conditions in the area? Climate will have a direct impact on plant materials that can be grown. For example, the temperature and rain patterns in Flagstaff are very different than those in Phoenix. These differences will control what can be grown and what the irrigation requirements will be.
- Are there any weeds, erosion, or other environmental concerns?
- How much capital do you have to commit to this enterprise?
- How much time can you dedicate to this enterprise? How flexible is your time? Managing livestock and irrigated pasture is a 24 hour per day, 7 day per week job.
- What knowledge, skills, and ability do you have? Examples include livestock handling and care, agronomic, irrigation practices, equipment operation, and construction skills.
- Will you be doing the work or will you rely on hired labor? Is labor available in the area?

## THE DECISION

It is critical that your goals are matched with resource capability. If the original goals don't match your resource inventory the goals should be adjusted, otherwise resources will be over-committed. This decision is probably the most important decision you will make for your long term success and enjoyment. Don't be afraid to ask for help from neighbors and family, Extension specialists or the local Natural Resources Conservation Service office - all can be helpful resources. Here are a few decisions that need to be made based on your goals and resource inventory.

- Are the desired goals realistic for your property and resource capability?
- Are personal knowledge, skills and ability compatible with your goals?
- Are financial and time resources compatible with your goals?
- Is there a willingness or ability to commit to learn what is needed to be successful?

## MAKE YOUR PLAN

Once goals are set, property inventoried, and goals refined, it is time to make the plan. Remember you may be living with this for a while so build into the plan usability, ease of operation, ease of access, ease of maintenance, and any other ideas that provide efficiency to the operation. There is more than one way to do something, so think of alternatives for each element of your plan. As you complete this task compare your goals to the alternatives and select the ones that best meet personal needs and goals. This will customize the plan to your specific needs. Key elements of the irrigated pasture plan include the following considerations.

- Facilities: Built to suit the kind and class of livestock, the size of operation and personal preference.
- Water and irrigation management: Address irrigation methods and efficiencies. Balance the available water with the acres to be irrigated.
- Pastures: Plan pastures size and layout. Decide whether to establish new or renovate old pasture.
- Vegetation management: Plant material and species selection is tough in Arizona. The primary factors in determining your plant material will be water availability, soil capability, local weather and climate conditions, and livestock forage requirements. These factors dictate what can successfully grow in an area.
- Soil: Address health and fertility so a good growth environment is provided for pasture species selected.
- Weed management: Weed problems are often a product of poor management and must be addressed.
- Grazing management: Plan how pastures are grazed. Avoid year-long or season-long grazing by planning grazing deferment for plants and pastures. Plan where livestock can be kept and fed when pastures are wet from irrigation or deferred from grazing to provide for regrowth.
- Livestock Management: Classes of livestock require different facilities, and have different health, nutrition and feeding, and handling and marketing requirements. Build the plan around the class of livestock in your goal.

- Maps: A good map with a detailed layout of the plan is invaluable. It can depict the conceptual design and will give a vision of what the finished product may look like; it also allows visualization of problems.
- Financial plan: Be realistic with finances, time and labor.

Finally, keep in mind your level of expertise in livestock management and agronomy when making the plan. You may need some training or more experience. Be realistic with financial and time commitments and associated labor requirements for your plan. In today's environment of high input costs such as fertilizer, electricity, water, equipment, fuel and labor it is critical to be realistic. Unrealistic plans and costs can reduce your success and your general enjoyment of the enterprise. Below are some useful websites that can provide more specific information.

Extension Websites

[http://www.extension.org/pages/Pasture\\_Management\\_on\\_Small\\_Farms](http://www.extension.org/pages/Pasture_Management_on_Small_Farms)

<http://extension.usu.edu/smac/html/pastures>

<http://attra.ncat.org/attra-pub/sustpast.html>

Natural Resource Conservation Websites

<http://www.az.nrcs.usda.gov>

<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

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