Alfalfa as a Grazing Crop: A new Opportunity?

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The term "paradigm" refers to the way we see something. For example, someone who grew up in a big city may see farming as a lifestyle which holds no appeal. However, if such a person actually lived on a farm for a while, he or she might learn to appreciate farm life more, and maybe even eventually prefer it to living in a city. The process of gaining insight which changes one's thinking toward something constitutes a paradigm shift.

There have been some interesting and potentially highly important developments pertaining to alfalfa in recent years. Collectively, they have the potential for causing people to change the way they think of this magnificent forage crop, and this is particularly true for those of us who live in the lower South.

- **Alfalfa's Image As A Hay Crop**

The excellence of alfalfa as a forage crop has long been recognized. It is a good yielder, drought tolerant, and provides superb quality forage over a long period of time on which all types of forage-consuming animals perform extremely well. Because of these and other desirable traits, alfalfa is often referred to as "the queen of forage crops."

In many parts of our nation, alfalfa is widely planted for hay production, but alfalfa acreage in the South is relatively low. One of the main reasons for this is that our often-frequent rainfall and high humidity levels are not highly conducive to harvesting alfalfa as hay. It can be done (and some Alabama are doing well producing alfalfa hay), but the level of difficulty is definitely higher than in other regions.

- It is no accident that the vast majority of the more than 25 million acres of alfalfa grown in the United States is harvested for hay or silage. Most alfalfa varieties are quite sensitive to close and/or frequent defoliation. Therefore, until recently, commercially-available varieties required a rather specific defoliation regime.

  To graze these "hay-type" varieties, a rotational stocking approach which provided a quick grazedown followed by several weeks of rest was necessary for long term stand persistence. The usual approach was to divide a field into at least 4 paddocks to be grazed sequentially, stock heavily enough to graze the alfalfa down in a given paddock within 5 to 12 days, then rest the paddock for at least 30 to 35 days before grazing the regrowth.

  There have been problems associated with grazing alfalfa under such a strict

grazing regimen. Seasonal and weather- induced growth variations often made it difficult to follow the prescibed rotation schedule. Also, the fencing and water costs involved were often viewed as being exorbitant. Finally, many producers just felt it was too much trouble. The result was that despite the potential for good animal gains from grazing alfalfa, relatively little was used as pasture.

- **Grazing Now More Feasible**

  In recent years there have been several developments which have greatly increased the feasibility of using alfalfa as a grazing crop. First, innovations in fencing and water-supplying technology have made it much more economically feasible to use rotational stocking on any pasture, including alfalfa.

  Secondly, economic pressures have caused many producers who have animals with high nutritional requirements to consider substituting pasture for expensive supplemental feeds. Auburn University budgets reflect that over half the cost of producing alfalfa hay is associated with harvesting. If livestock (instead of the producer) harvest the alfalfa forage, much of the expense associated with using alfalfa to provide nutrition is avoided.

  In addition, the cost of nitrogen fertilizer has been rising steadily for years. The result is that many producers are increasingly interested in using legumes, particularly perennial legumes, to help reduce nitrogen fertilizer costs. Alfalfa is one of the very best nitrogen fixing forage plants.

  Finally, and most significantly, new varieties of alfalfa have been developed which are much less sensitive to defoliation by grazing than are hay-type varieties. The first such variety to become commercially available was developed at the University of Georgia and is named 'Alfagraze.' However, now that grazing tolerance is known to be a genetic trait, we will no doubt see numerous additional grazing tolerant alfalfa varieties released in the future (in fact, some additional ones are already on the market).

- **So What?**

  To truly grasp the importance of these developments, it may be helpful to consider how alfalfa is used in some other parts of the world. Argentina, where there are over 4 million acres of alfalfa pasture, makes a particularly good example.

  For many years beef producers in Argentina have faced the problem of

needing to obtain excellent gains without having to use nitrogen fertilizer. (In their case fertilizer not only is expensive; in many areas it is not available.) Their solution has been to grow alfalfa in combination with cool season grasses such as tall fescue and orchardgrass. In reality, most "alfalfa pastures" in Argentina are actually alfalfa/grass mixtures (for example perhaps 30% alfalfa and 70% grass).

This approach offers some real advantages. The alfalfa greatly increases animal performance over grass alone, helps even out forage availability, and provides nitrogen for the grass. The grass practically eliminates the possibility of bloat and provides dependable forage production over a long period of time. Furthermore, the likelihood of animal disorders such as grass tetany and fescue toxicity are reduced or eliminated when there is alfalfa in the pasture.

It is also significant that when used as a grazing crop, alfalfa can make a contribution for a much longer period of time than when it's grown for hay. When alfalfa is being cut for hay, a thin stand may not be economically feasible to maintain. However, a pasture with a thin stand of alfalfa is not a problem. For example, an alfalfa/grass pasture with only 5% alfalfa is a lot better than a grass pasture with no alfalfa!

Grazing tolerant alfalfa also offers producers much more flexibility than hay types. Grazing tolerant alfalfa doesn't have to be grazed. A producer can cut hay when it is convenient and the weather permits; otherwise he can graze it. Furthermore, while rotational stocking is still the best way to make maximum use of alfalfa pasture, with a grazing tolerant variety a producer does not have to use a strict grazing regimen and can even continuously stock if necessary.

- **It's Still Alfalfa**

  In our excitement about the potential of these recent developments, we should not forget that grazing tolerant alfalfa is still alfalfa, and alfalfa is a crop which requires a fair amount of management. The establishment requirements, yield, potential insect and disease problems, and other characteristics of grazing tolerant alfalfa are similar to hay type varieties. Alfalfa can only be successfully grown on fertile well-drained soils, and the soil pH needs to be adjusted to the range of 6.8 to 7.0.

  In Alabama, alfalfa should be planted in late summer or early autumn, and planning ahead greatly facilitates success.

  Anyone interested in planting the crop in any given autumn ideally should

begin making his plans six months or more in advance.

- **Conclusion**

  In the past we have thought of alfalfa as a hay crop which can sometimes be grazed, but maybe we should instead think of it as a grazing crop which can sometimes be cut for hay. We also have thought of it as a crop which is best suited for use in other parts of the nation, but because of our long growing season it may have its greatest pasture potential in our region.

  The point is that a paradigm shift regarding this crop is in order. Alfalfa isn't for everyone, but as a pasture crop, or as a dual purpose pasture and hay crop, it certainly has the potential of impacting greatly on livestock production on some Alabama livestock.