Oklahoma SUPERGOLD Q&A

Late-season Supplementation Program for Stocker Cattle

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The Oklahoma Gold and Super Gold supplementation programs were designed to improve performance of weaned calves and stocker cattle grazing native range during late-summer and fall. The Oklahoma Gold program can be described as a high protein (38%) supplement, fed at the rate of 1 lb per day, and includes a feed additive along with vitamins and minerals. The Oklahoma Super Gold program is similar, although it includes 25% protein and is designed to be fed at the rate of 2.5 lb per day. ANSI-3032 provides details regarding the Oklahoma Gold program and this fact sheet includes a series of questions and answers regarding the formulation and application of the Oklahoma Super Gold program.

1. **What is SUPERGOLD?**
   It is a mid-protein addition to the Oklahoma Gold program that contains a 25% protein supplement made from high quality protein and energy ingredients. The formulation specifications stress maximum use of digestible fiber ingredients that are highly compatible with optimum forage utilization. Ingredients with poor or questionable feed value are not allowed in the formulations.
2. **What are the feeding recommendations?**
   Feed the specified feed at a rate equivalent to 2.5 lbs/day. This may be 2.5 lbs/day or 5 lbs every other day. Do not let these recommendations conflict with specific instruction found on the feed tag. Do not allow any one animal to eat excessive amounts of feed.
3. **Is this an energy supplement?**
   Not really. SUPERGOLD contains 25% protein and is designed to be fed at a rate that will provide more total protein than GOLD. The added protein may be needed by young, fast-growing stockers and ensures adequate protein for both the rumen and the calf. SUPERGOLD has much more in common with the GOLD program than with corn or other grains.
4. **I like the Oklahoma GOLD Program, so why would I consider a change?**
   You may not need to change. The Oklahoma GOLD Program (1 lb/day of 38% protein supplement with an ionophore or aureomycin) is one of the most cost effective and cattlemen-proven supplementation programs ever developed. Between early June and October, feeding 1 lb/day of GOLD can increase gains of stockers grazing summer pastures by up to 0.6 lb/day. In addition, the GOLD Program offers a low volume-feeding program with a flexible every-other-day feeding schedule. Under these conditions, it is very difficult to economically beat the GOLD Program.

   However, many small feed mills find it difficult to profitably manufacture a high-protein cube because of low sales volume and limited opportunities to recover an adequate margin. In these areas cattlemen not able to feed in truckload quantities, often find it difficult to obtain high protein cubes at reasonable prices.

   In addition, cattlemen sometimes wish to feed more than 1 lb/day of supplement or may need to feed cattle on forages that are higher in protein than summer native range. Many times it does not cost much to add about 1.5 lbs of an ingredient like wheat middlings to the GOLD cube. This can especially be true during the summer when ingredient prices tend to be lower. The resulting cube will contain about 25% crude protein.
5. **What are some situations when SUPERGOLD might be appropriate?**
   Specific situations when feeding 2.5 lbs of 25% protein supplement may be appropriate are:
   - *Early intensive grazing of light-weight cattle on native range up to July 15.*
   - *Grazing programs on Bermuda grass pastures.*
   - *Heifer development programs when accelerated gains are necessary to achieve proper breeding rates.*
   - *When a greater daily level of ionophore than delivered through Oklahoma GOLD (100 mg/head) is desired, as with heavier weight stockers. Some data suggest that with Bovatec, 200 mg/head/day will give a better response.*

   Remember, SUPERGOLD for summer stockers is still a low volume supplement program, designed for 2.5 lb/day. This daily volume still permits every-other-day feeding, depending on the additive package.
6. **What cautions do I need to be aware of?**
   SUPERGOLD, like GOLD is a low-volume supplement designed to increase or at least maintain forage intake. If forage is limited, neither program will work. SUPERGOLD IS NOT A FORAGE STRETCHER. To the contrary, more forage may be required. If the cattle run short of grass, the advantage of either program can be lost in just a few days. The forage must also contain adequate quality to permit acceptable gains when GOLD or SUPERGOLD are fed. For summer forages, economical gains of over 1 lb/day may not be possible after mid-July. GOLD and SUPERGOLD may contain an ionophore or antibiotic and must be fed at the rates and times stated on the tag. Feeding either feed at rates above or below the tag recommendations, or at times not stated on the tag is not approved by the FDA.

7. Are you guaranteeing good gains when my calves are fed GOLD or SUPERGOLD?

NO. When fed at the times and rates suggested, and when there are adequate quantities of forage grazed by healthy, growthy cattle, gains should be increased by about the amounts shown in the research + 0.4 lb/day for GOLD and + 0.7 lb/day for SUPERGOLD. If an ionophore or Aureomycin is included at the approved level, gains may be further increased by about 0.2 lb/day.

If forage quantity is inadequate, cattle are sick, adverse weather is encountered, or cattle just do not have the genetic potential for good gains, then performance may be poor even with well-designed supplements. In order to know how well supplements work; you must know what the cattle would have gained without any supplement. There is tremendous variation in gains from year to year and overall gains of calves supplemented one year cannot be compared to gains of similar calves grazed without supplementation another year.

8. When and how long should I feed SUPERGOLD?

SUPERGOLD may be a good choice for light calves on early intensive grazing programs and on forages like Bermuda grass. Light calves have a high protein requirement, often exceeding the protein content of native range by June 1. On the other hand, the forage is still relatively digestible, and feeding up to 2.5 lbs of well-designed medium protein cubes provides both supplemental protein and energy.

SUPERGOLD can be started about June 1 with light calves on native range. With young, large-frame, growthy calves, supplementation might even be started sooner than June 1, but we have not yet researched starting dates that early. Bermuda grass is trickier to predict because the quality is less dependent on season and more dependent on precipitation, fertilization rate, forage height, and maturity. Some research suggests that protein is less available in Bermuda grass and that cattle might respond at higher forage protein levels than for native grass. It is generally accepted that unsupplemented gains will be lower on Bermuda grass than on native range.

9. Should SUPERGOLD be fed all summer?

It is important for cattlemen to recognize that there is a limit to the amount of gain calves can efficiently achieve on pasture. When SUPERGOLD is fed beginning in early summer and gains are very good, exceeding 2 lbs/day, late-summer gains may be reduced. Forage quality declines rapidly beginning in mid-summer, just at the time that the rapidly gaining calves are getting fleshy. This means that while SUPERGOLD can be an excellent choice for increasing gains during early intensive grazing programs, it may not be the best choice for season-long grazing. During season-long grazing, OKLAHOMA GOLD, which will produce a more moderate increase in gain, may be able to sustain those efficient gain increases over a longer period of time.

When forage quality is poor such as late summer, winter, or when low quality hays are fed, SUPERGOLD may be profitable for the time the calves are grown on these low quality forages.

10. Why not just feed grain, like corn or milo?

The answer lies in the importance of adequate protein. Grains can be used efficiently when fed at low daily amounts (about 2 lbs/day) to cattle grazing forages like wheat pasture or fescue. The reason grains work in these situations is that the forages are very high in protein; in fact, they have more protein than needed for the energy content of the forages. So, you can feed a small amount of grain and still have the diet balanced between protein and energy.

The protein content of warm-season forages like native range or Bermuda grass is usually much lower than for cool-season forages. So the addition of large amounts of grain quickly makes the total diet deficient in protein. The result is lower rates of forage digestion, reduced forage intake and very poor conversion of grain to added gain.

GOLD works efficiently because it balances the protein in the forage diet, increases forage intake and produces very efficient conversions of supplement to added gain. The addition of an ionophore or Aureomycin makes it even more efficient. By making SUPERGOLD at least 25% protein, holding the feeding level to 2.5 lbs, and restricting the starch content of the supplement, SUPERGOLD can provide supplemental protein and energy with minimal reduction in forage intake. The result is efficient conversions of supplement to added gain.

11. 2.5 lbs of SUPERGOLD provides more protein than 1 lb of GOLD. Is this extra protein needed?

Yes, 2.5 lbs of SUPERGOLD provides more supplemental protein than does 1 lb of GOLD (0.62 lb of protein vs. 0.38 lb). Remember that inadequate protein is devastating to forage intake and cattle gains. The additional protein helps compensate for the increased amount of energy in the supplement as well as ensuring that light weight, growthy calves receive adequate daily protein. Modern, high gaining calves have very high protein requirements. The protein level of SUPERGOLD is set at 25% to ensure that protein is adequate and that costly feeding mistakes from inadequate protein do not occur.

12. Is there a reason why I cannot just feed 1 lb of SUPERGOLD instead of 1 lb of GOLD and save money?

The answer totally depends on the protein content of the forage and protein requirements of the cattle. If 1 lb of SUPERGOLD (25% protein) meets the protein requirements, the gain response would probably be the same as for 1 lb of GOLD (38%). This could be the case in May or early June. However, if 1 lb of 25% protein supplement did not meet protein requirements, gains and efficiency would be reduced compared to feeding 1 lb of 38% protein supplement. A number of OSU studies shows that 1 lb of 25% protein supplement is not enough after early July on Oklahoma native range. Therefore, after July 1, cattlemen need to feed 1 lb of GOLD or 2.5 lbs of SUPERGOLD. Feeding a low dose of the feed additives will greatly reduce the response to the additive.

13. If 2.5 lbs of SUPERGOLD works, why not double the daily amount to 5 lbs/day and double the benefit?

It is not that simple. Efficient supplements increased, or at least maintain forage intake. At the 2.5 lb/day level, SUPERGOLD is probably increasing forage intake and digestion. However, as the amount of supplement is increased, forage intake will begin to drop. The cattle would undoubtedly gain faster with 5 lbs of SUPERGOLD, but there would be greater

substitution of supplement for forage, resulting in poorer conversions of added supplement to added gain. Unless the value of gain is very high or feed is very cheap, SUPERGOLD should be fed at the rate 2.5 lb/day to maintain good forage utilization and profitable returns from supplementation.

14. Should I include an ionophore (Bovatec or Rumensin) or Aureomycin (aureomycin) in SUPERGOLD?

In grazing situations, the decision depends on the anticipated rate of gain. Ionophores do not improve gains when gains are poor (less than 1 lb/day). Therefore, ionophores would not be recommended for dry winter holding programs when gains are poor. The only exceptions may be if coccidiosis is considered a threat. Bovatec and Rumensin are cleared as coccidiostats.

In grazing situations where gains will be expected to exceed 1 lb/day, ionophores or Aureomycin should be included. The added gains will almost always be profitable. The choice of ionophore or aureomycin depends on the preference of the producer. Aureomycin is typically used more frequently when foot rot or pinkeye are likely to be problems. Aureomycin brand of aureomycin has no withdrawal requirements at the levels we recommend. If generic aureomycin were used there will have to be a stated withdrawal before cattle may be slaughtered on the feed tag.

15. Are Rumensin and Bovatec supposed to be fed daily?

Rumensin is approved for alternate day feeding on pasture. Regulations state that Bovatec must be fed daily. It is possible that the response to the ionophore is a little better if the supplement is fed daily. Neither ionophore will work properly unless the animal receives the proper dosage at least every other day.

16. What dosage of Rumensin does OSU recommend for SUPERGOLD?

OSU recommends that Rumensin be fed at the rate of 150 mg/head/day (120 grams/ton in a feed tagged for feeding at 2.5 lb/head/day). Maximum response may occur at a rate of 200 mg/head/day. Rumensin is also approved for every other day feeding. Be careful in the management of feeds that contain Rumensin because high levels of this drug have been found to be toxic to cattle.

17. Are the supplements used in these programs toxic to horses?

Yes. Horses should never be allowed access to feeds containing ionophores. Rumensin is the more toxic of the two. With GOLD feed (100 mg/lb of ionophore), about 10 lbs of feed with Rumensin or 100 lbs of feed with Bovatec could be toxic to horses, although some individuals may be more sensitive.

18. What feeding rate for Bovatec does OSU recommend in SUPERGOLD?

OSU recommends that Bovatec be fed at the rate of 150 mg/head/day (120 grams/ton in a feed tagged for feeding at 2.5 lb/head/day). The rate may be increased. Some data suggests that 200 mg/head/day will give a better response. CAUTION: Regulations state that Bovatec should be fed daily.

19. Why does OSU recommend a lower level of Rumensin and Bovatec in the GOLD program but a higher level in SUPERGOLD?

GOLD is designed for feeding at 1 lb/head/day and, therefore, the ionophore concentration will be higher than 2.5 lbs of SUPERGOLD. In order to avoid potential problems with palatability and toxicity, the level of Rumensin is limited to 100 mg/head/day in the 1 lb/day GOLD program (200 grams/ton). The lower concentration of ionophore per pound of SUPERGOLD permits feeding a slightly greater amount of ionophore.

20. What about using a small amount of SUPERGOLD just as a carrier for an additive or to help manage cattle?

Sometimes cattlemen want to provide a small amount of feed for their calves in order to facilitate management (check for sick calves, count the cattle, keep the cattle tame, etc.) or to use a small amount of supplement as a carrier for an ionophore or aureomycin. A formulation like SUPERGOLD can often be a good choice in these situations. However, the antibiotic or ionophore concentrations must be adjusted to compensate for the lowered feeding level and technically, this will not be the SUPERGOLD program because expected gain responses will be different. The producers, feed manufacturers, and others who may provide needed technical expertise, must carefully plan these feeding programs.

The response from an additive alone will seldom pay for feeding a supplement. To the contrary, the supplement must be profitable by itself. When the supplement is profitable, there is a very little additional cost for including an additive and the additive response is very profitable.

21. Do I need added Vitamin A in the supplement?

Probably not as much as you think unless we are in a drought. Vitamin A addition does not cost much (about $2 to $4/ton) and has become almost automatic over the years. However, it is very doubtful that calves grazing green forages ever need supplemental Vitamin A. Furthermore, cattle usually have good body stores of Vitamin A and do not need it every day or even every month. So while Vitamin A is not a big expense, it is still one that maybe spared during most summers.

22. Does SUPERGOLD need to be pelleted and if so, what size of pellet is best?

Calves do not like feeds with fine, dusty consistency. Many of the ingredients likely to be used in SUPERGOLD are going to fit into this category, especially wheat midddlings and soybean hulls. Unpelleted supplements are also much more prone to settling and sorting of ingredients and additives. Calves seem to prefer small pellets (1/2 inch diameter or less). Half-inch pellets can also be easily fed on the ground. Pellets smaller than half inch are very appealing to calves but need to be fed in bunks to reduce wastage. Large and very hard cubes are unacceptable to many calves.

23. What about feeding SUPERGOLD to replacement heifers?

Heifers being grown for breeding at 15 months of age must achieve an acceptable weight before reaching puberty. This will be in the range of 600 to 700 lbs at 15 months of age. Both GOLD and SUPERGOLD at the recommended feeding rates may be good bets for feeding during late summer to heifers that will be bred in the fall. For spring-born heifers grown on low quality lbs of a mid-protein supplement in order to achieve daily gains of about 1 lb/day. SUPERGOLD is a well-

formulated mid-protein supplement for this purpose if the concentration of ionophore or antibiotic is reduced to compensate for the increased feeding level.

Research also suggest s that feeding an ionophore for a least 100 days before breeding may reduce the age and weight needed to reach puberty. Research is underway at OSU to confirm this.

24. What incentive does a feed manufacturer have to produce SUPERGOLD?

Feed manufacturers can reap several benefits from such a product. Specifically, these benefits are:

- *Increased sales especially during periods when sales are typically slow.*
- *Increases the stability and profitability of their customer's summer stocker enterprise.*
- *Use OSU research to promote a very high quality mid-protein supplement.*
- *Offer customers a wider range of options for different classes of cattle and forage situations.*

25. Should cattle on the GOLD and SUPERGOLD Programs be implanted?

Yes. The effects of feeding programs and implants are 100% additive. The advantage of implanting becomes larger as the rate of gain increases. Both GOLD and SUPERGOLD, which increases the rate of gain on summer pastures, will increase returns from implanting.

26. I am leasing my summer pasture to a cattlemen who pays me $.25 per pound of gain. Will it pay me to feed GOLD and SUPERGOLD to his cattle?

Usually no. However, you need to analyze what might happen. If using GOLD for example, 12 cents worth of feed might return you 15 cents (0.6 lbs. of gain worth $.25/lb). Anything less than the expected rate of gain would result in a financial loss for you. Contrast this case with a situation where you own the cattle and the gain is worth $.60/lb. Even if you lost half the potential increase in gain (half of 0.6 lbs times $.60/lb.), you would still have $.18 worth of gain for the $.12 worth of feed.

27. I graze my calves on summer pasture that I lease at the rate of $1.25/cwt. of cattle per month. Will it pay me to feed GOLD or SUPERGOLD?

Yes, if there is plenty of forage, you might expect to increase the rate gain. In this case, you retain all the value of the added gains and the costs will be the costs of feed and feeding.

28. I am renting pasture on a gain basis and pay the landowner $.32/lb. for the gain. Will it pay me to buy SUPERGOLD and have it fed to my cattle?

Most likely not. Besides buying the feed, you will be paying the landowner up to 29 cents more per day (0.9 lb of gain times $.32). The landowner and you need to get out a sharp pencil and do some more figuring. Possibly the cost of the feed can be split between the parties as both can potentially benefit.

29. The example budgets suggest that with 2.5 lbs/day of SUPERGOLD, gains should increased 0.9 lbs/day, and with 1 lb. of GOLD, gains should increase 0.6 lbs./day. How sure are you that the 0.9 and the 0.6 lbs./day are correct?

Again, there are no guarantees. Daily gains in a number of research trials were averaged to arrive at these values. It is not possible to guarantee that your cattle will do the same. To look at the possibility that your cattle will perform at a different rate, it will be wise to review the three areas that produce the gain response. The potential response comes first from protein, second from energy, and third from the feed additive.

30. I feed a mineral containing an ionophore. If I continue to offer it and feed one of the "GOLD" Programs, will I still get the expected benefit??

No. If the mineral already provides the ionophore in adequate amounts, the potential gain resulting from the feed will be reduced by 0.2 lbs./day. Excessive ionophore intake may reduce gains below that which would have occurred without feed or may even be toxic. Never feed either of the GOLD feeds containing an ionophore and a mineral mix also containing an ionophore.

31. What will happen if I elect to use no ionophore or Aureomycin in my feed?

You will be feeding either a 38% or 25% protein supplement, which cannot be labeled as meeting the requirements for Oklahoma GOLD, or SUPERGOLD, and the added gain will likely be up to 0.20 lbs./day less than we project in the budgets. While it will likely be less profitable, only you can determine if it is profitable to feed.

32. What is in SUPERGOLD and how do I know that it is a high quality feed?

As with the GOLD Program, OSU Animal Scientists set specifications to ensure appropriate ingredients and nutrients. The specifications permit reasonable flexibility for manufacturers to choose among desirable feeds based on changing prices and milling requirements. Feed manufacturers producing a feed meeting these specifications may label the feed as "Meeting requirements for the OSU SUPERGOLD Program."

33. Other feeds such as cottonseed meal pellets are very similar to Oklahoma Gold cubes, what is the difference?

One pound of cottonseed cubes will likely increase gain in mid summer about 0.4 pounds per day. While 1 pound of Oklahoma Gold cubes should increase gain about 0.6 pounds per day. Either feed should be very profitable to feed. Because of the feed additive (Rumensin, Bovatec or Aureomycin) the Gold Cube should produce gain worth (0.2 X $.60 per pound) or $.12 more per day. If the Gold Cube cost $10.50 per CWT and the cottonseed cube were free the producer would still be ahead to feed the Gold Cube at these levels.

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