

# Gain More Profit By Increasing Alfalfa

BY PAT PURCELL

CHRISTIANA (LANCASTER CO.) — The Knot-Run Farm near Christiana is named for the stream that flows through it and not the philosophy of John and Barbara Brubaker, owners.

Since coming to the farm eleven years ago, they have tripled their alfalfa yields and increased corn yields by nearly fifty bushels per acre. John's goal is to achieve an income over feed costs of \$100 per 1,000 pounds of milk produced. To do that, with the dropping milk prices, John efforts are focused on high yields, and low cost input.

"Everything works in cycles. You need good nutrients on the soil to get good crops, you need good crops to get more milk and you need more milk to pay the bills to be able to get good crops. I have the best soil in the state here on the farm. It's class I chester silt loam, but it needed some help," explained John.

"Every dollar I made I put back into the farm in the first five years we were here. Barbara was a nurse and she put the food on the table. Everything I was making was pumped right back into the farm."

Gaining a return of \$100 per 1,000 pounds of milk, John emphasizes is a goal and said he is not sure if he can achieve it, but he is going to try and he is getting closer. On 60 cows with a herd average of 22,000 pounds the Brubakers' income over feed costs are approximately \$1,950. John said he is considering not using some feed additives which give him more milk because the cost of those additives take him farther away from his goal. The idea of decreased production to increase income is not a popular concept among most dairy farmers, but doing what works, not what is popular, is the norm for John and he has found success doing things his way.

The Brubakers' methods for increasing alfalfa and corn production while decreasing fertilizer, herbicide and pesticide use are examined in the following questions and answers.

**LF: In what condition was the soil when you came to the farm?**

Brubaker: "The soil was acidic. It needed lime. The land was producing more of a grass type hay than alfalfa. When I came here the hay yields were about 3 1/2 ton and the fields really needed fertilizer. Corn yeilds were around 100 bushels per acre".

**LF: What were your first steps for corn production?**

Brubaker: "On the corn fields I started with 180 units of nitrogen, 50 units of phosphates, 80 units of potash per acre in the plow down. I used 200 pounds of fertilizer on the row of 8-24-8. Now I use 150 pounds of 12-24-10 of starter fertilizer. I don't use any plow down, but when I apply my herbicides to my corn I do use liquid nitrogen which is 30 percent nitrogen and two percent sulfur. The sulfur enhances the uptake of the nitrogen.

Where I double crop with the rye and the corn I use 100 lbs. of nitrogen. Where I shell corn or pick I just use cow manure."

**LF: What's your corn yield?**

Brubaker: "If I get 145 bushels an acre I'm satisfied."

**LF: What are your alfalfa yields?**

Brubaker: "Hay is around 8.7 tons per acre. Some of my fields this year hit 10 tons. I hope to get,

12 tons off of some fields next year, but there is a point where the yield won't be worth the expense. There is a point where it just isn't worth it to pump any more fertilizer into it. As of right now I think eight to ten ton per acre is the break point."

**LF: When do you start planning your alfalfa crop?**

Brubaker: "I plan now for where I'm going to have my alfalfa fields three years from now. I'll apply lime this fall to those fields to neutralize the soil and in two years sow my seed. I soil test in the fall. I use no fertilizer when I sow the alfalfa. But I pump the liquid manure to the fields at about 9,000 to 10,000 gallons of liquid manure. I spread manure in the fall when the fields are firmer. Once I get the manure on I plow it in I get the manure just loaded on the fields and worked in so I am ready to sow the seed in mid-March."

**LF: How early do you sow alfalfa?**

Brubaker: "I sow alfalfa the second week of March. You've got to hit it just right and in the second week of March there's always a nice dry period. It is still plenty cold out there."

**LF: What are the advantages of planting so early?**

Brubaker: "People think I'm crazy planting so early, but the alfalfa seed will germinate before it gets any competition from the weeds or grasses. That way the growth of the alfalfa chokes out the weeds and grasses and I don't have to use any herbicides which is good because herbicides cost money."

**LF: Why use the liquid manure instead of a single application of commercial fertilizer?**

Brubaker: "Why shouldn't I use it. You can't beat that liquid manure for starting alfalfa. And it's no money out of my pocket. I pump the manure onto the fields in the fall and I don't put any manure on the field for the next four years."

**LF: How is the manure applied? Do you do any injecting?**

Brubaker: "I did some injecting, but I found it was so uneven that it did not give accurate soil test results. I do all mine surface spread and I chisel it in and then plow down. I put in a manure which is gravity fed, but I only have to spread manure twice a year. It was a good investment for me."

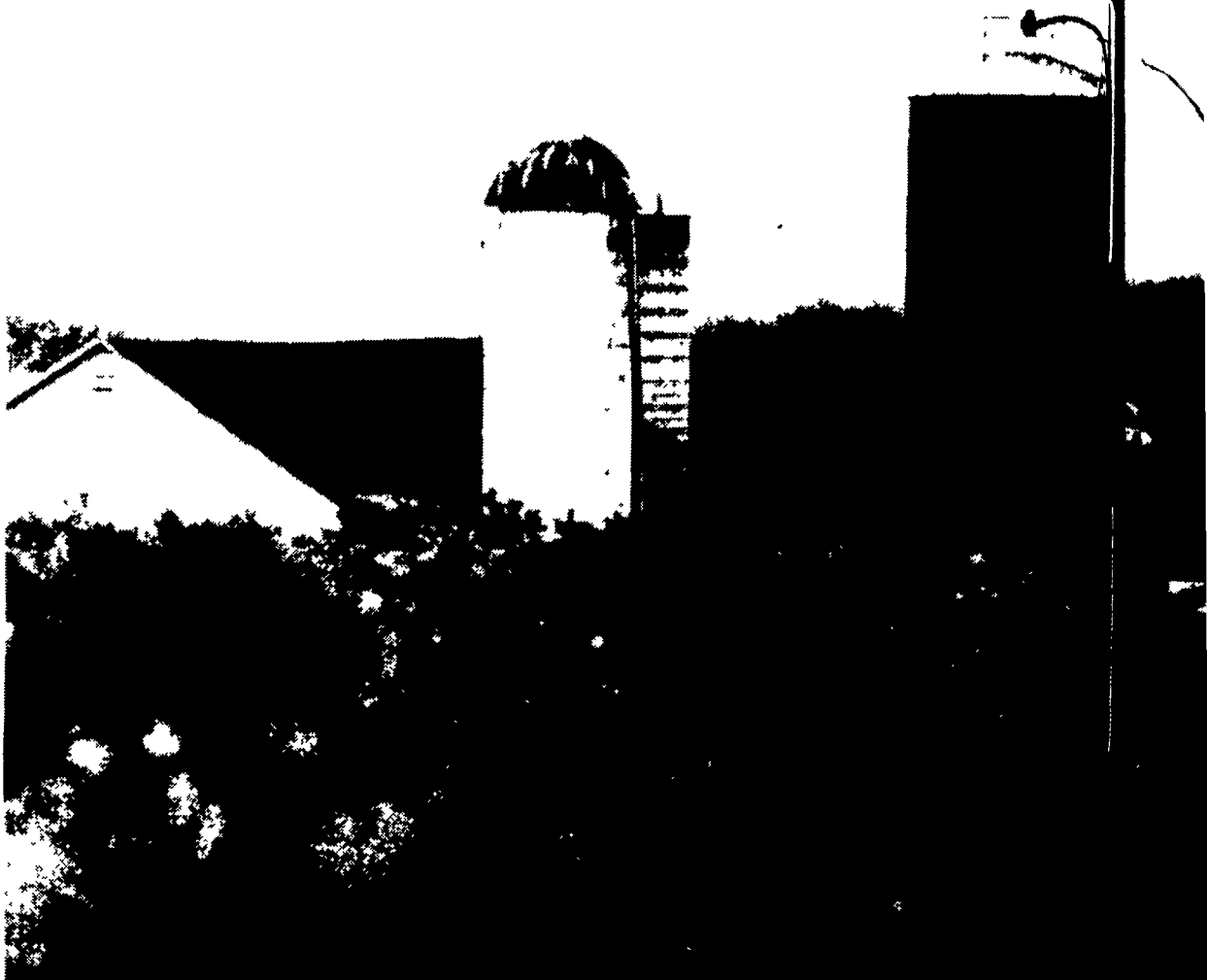
**LF: Applying that much liquid manure at one time do you get any complaints from neighbors about the odor?**

Brubaker: "No. I spread manure before the air temperature reaches 50 degrees. People think I'm crazy on this, but if you spread manure when the air is 50 degrees or hotter you smell it because that is the ammonia breaking down. I spread in March and late November and I don't get any complaints."

**LF: What herbicides, pesticides and insecticides do you use?**

Brubaker: "Only what I have to. I am very chemical conscious. Too many chemicals are being applied already. The ag sector is prone to damage the underground water supply. Besides less chemicals means less dollars I have to spend."

**LF: How can you afford not to use chemicals?**



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