## Use of the DART Program in the Southeast as a Practice Option

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I left practice about 8 years ago and went to Auburn, and 8 years to the day I moved back and bought the practice that I left. There were 8 veterinarians in a 60 mile radius and now there are 23 and our 60 mile radius has added about 15 or 20 miles. They are pulling their horns in from the standpoint of economics (these are large dairies) so I've had a chance to review the situation and make up my mind the direction we want to go. We're planning to switch from treatment orientation to management, nutrition and herd health. This is, of course, what I've been hearing in this group. So that's what we're planning to do.

One of the tools that I have seen in the Southeast is the DART program which stands for Direct Access to Records by Telephone and this is a Southeastern program at the DHIA Processing Center at Raleigh. I understand there is another one in the northeast. It's an on-farm computer terminal. It doesn't have to be anthing high powered. It can be just a small, portable unit with a telephone connection with the DHIA computer in Raleigh. It allows you to have daily input, status changes on cows, and call that information back and I'll show you some of the other things it will do. The dairyman can design his own report and the key I want to bring up here is that the dairyman can do this but a lot of them in the southeast are not doing it. The veterinarian can also do this, I found out. So that's why we're looking at it—professional maintenance of programs and data base, you can't beat that. The Raleigh group does an excellent job in keeping it top rate and the objectives are to be flexible, timely, simple and have a central program, a central maintenance of programs and a data base. I am no so much interested in going through the mechanics of what numbers you plug in, in what column. I'm more interested in just showing you what it will take to get a feel for it. Apparently this is not just limited to one group in North Carolina. You might be able to get it in other areas, Alabama, Georgia, Florida, Louisiana, Kentucky, Mississippi, North Carolina, Indiana, Puerto Rico, South Carolina, Texas and Virginia. These are the states that have this option right now. Input can be by the DHIA supervisor. I think in order for milk tests to be official he puts in milk weights. The logical question is, if you can put in all the cow changes and you can put in everything but milk weights and have an official test, why do you need a supervisor? I don't know the answer, but some of the supervisors are doing the whole thing for the dairyman. The owner or dairyman, his employee, extension people, can get in and help these people have input, and last but not least, the veterinarian can do it.

We use a Radio Shack, nothing but a terminal. It has on

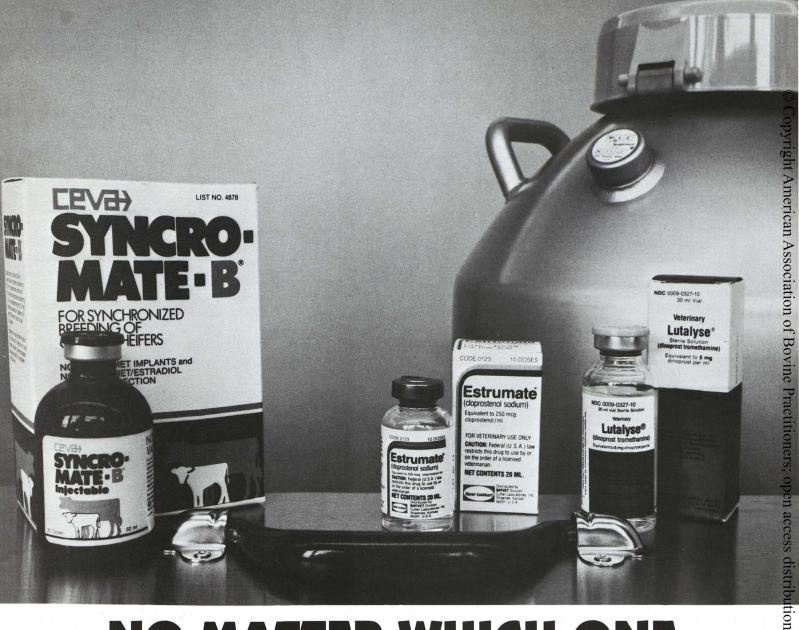
the left the telephone couple and in effect this is a remote terminal of the Raleigh computer. You can go this route which would be to have a telephone link to Raleigh using the microcomputer such as the TRS 80. The advantage to this unit is that you have to have the capacity to go in and put in all the information you want to put in and then you phone up. It's a little bit more complicated than that but that's the way it can be done. In other words that is a buffer system where you can put it all together and then call, rather than sit on the line and hunt for numbers.

Some of the things it can do, they call them applications, the numbers are important. One is that you're going to have to input status changes, two would be to create or change management reports. Example, if you call in and you want to do number 3, print reports, the supervisor uses the fourth application, test milk weights for the test day, he has a password that he alone knows so it adds confidentiality to it. Feed formulation, the program being used that originated in Virginia is a least cost type program, very fast and very good, sire summaries and in the ninth application is to get out, to quit. Under each application there are functions or directions on what you want done. An example, it lists the things that can be done to ask for input on cows. For instance to report test days, to report cows bred that day, to report cows that are fresh that day, and so forth. The functions are just inputs within any area of application.

To input status changes, you can get in, and these are the functions under input. So we can change reporting and report cows calving or going dry. When you first get on, the message from the Raleigh computer says fresh return and then it prints you a message and may say we're going to be closed from one date to another for computer maintenance, or whatever. If you have a problem, call such and such a number. It then says to enter your 8 digit herd code and then you have a password. It can be anything to fill in that blank. Then it is blanked out so nobody else can use that password. So the dairyman can have secrecy and the men working for the dairy can use their password or make it up for them, however you want to do it. It says enter application you want. We're going to create a report so we put in "2". I'd like to show you a little more than that.

The thing I found most interesting in starting was the master list of reports, just by not knowing anything once the herd is on there. If you want to know the cows for pregnancy check you ask for report number I and you go down the list. Cows to breed and milk 40 days or more. Now there are some differences between 2 and 3. They're not the same. The first few parts of the sentence look the same, but they're not.

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Number 9 is cows for vet check. High production groups, 70 lbs. or more, medium production, and you go on down the list and you notice 18, 19 and 20 are for future use. We don't know what will be in there just yet. Sale profiles, like cows above 800,000. It may give you information like this test or this test and previous test or previous two tests where you can go in and pick out these cows; cows that turned dry this week, cows dry more than 90 days, cows with more than 20,000 projected ME. There are some fixed things that occur. The master list is there. If you want to use it, fine. If you don't you can make your own. There is a list for every herd. You can't get them out. They are locked in and they are fixed reports. One is heat expectancy, information on a cow, daughters of a bull, status and breeding changes, conception rates by technician and in the big dairies this is very helpful to find out who is causing some problems or who isn't, cows bred to a particular bull and a list of new cows. You just type in 02. It says "what report do you want." Then it runs off the list. Cow No. 1, 35 lbs. of milk, fresh 80581 and the 30th day was 903. If you did that today in this room by telephone it would give you the most current report from the test date. You can combine reports, post partum check, cows for pregnancy check, it lists the cows for you—very impressive when you've got a thousand cows running. The super cow group gives you days in milk, 60 days, previous test day milk 67 lbs., test day milk 83 lbs. and it goes across the list and just itemizes it out for you. It gives you a conception rate summary for a month for to date. For instance the breedings and the percent successful. Cows with 100,000 lbs. in a lifetime, it lists those. You can create your own reports if you don't like those or if you want a special report such as cows calved 30 days ago, or any combination you want. You have to have the name, the format and read the manual to know those numbers.

I spend most of my time on the master lists and nutrition. But it might read something like cows fresh from one to fifty days producing 70 lbs. of milk up to 999. The 89 means and/or and the last entry has something to do with days. They might be like this listing reports created for your herd and you may only have 10 in this herd. Cows to pregnancy check, cows to post partum check, cows turned, low cows, springers, dry cows and then herds. Then you've got your fixed reports. Nutrition, you get application, feed formulation, you have a form to fill out to get ready and when it starts coming you're ready. It has feeds in there by numbers. 110 is coastal bermuda grass hay. It is \$80 per ton. If you don't put anything in any of the nutrient columns it pulls it off a standard sheet, a standard ingredient table or analysis table. In this case 313 is a silage of some kind...\$25 a ton, that's as fed and it has 35% dry matter. When you put in c and c it means from that point on it's concentrate and it will be handled separately as a grain mix. That has oats, wheat, corn, 48% soybean meal, vitamins and minerals. It goes down the list and you can just plug in the numbers, read them off, and then you get a report. This kind of report is pretty simple. It's using corn silage. The first entry up at the

very top gives you the group number, the group name. If you don't have a group name it will just do it for the whole herd. If you have groups then it does the groups and will automatically sort those groups by weight, butterfat, etc. Number of cows in the group, 125, they produce 53 lbs. of milk with a lead factor of 1.3, fat 3.9, body weights 1389, milk prices 1544. Unless you tell it differently it will summarize all that for you, then you put in your forage analysis. You might have a complete new analysis for everything you use. That's fine. You put it in and it will list it for you. The feeding program gives you the dry matter and contains the total ration breakdown and the requirements, and it gives you a feed cost per cow per day and per 100 weight. It essentially says with this type of program you set up, you need a 22% crude protein concentrate and it gives you the analysis, how you set it up and down, at the bottom it gives you the breakdown for 125 cows with a little bit of average on each side in case you add cows or take cows out. Coastal hay for 125 cows you need to put out 625, corn silage, 74, roughly 7500 and concentrate mix would be about 2600 lbs. That gives you approximate information.

There's a heifer management option which I don't know much about but it gives you a lot of information. The calves are entered and then they go on a two year program, when they need to be pulled, all procedures, all the information on breeding, feeding, vaccination, pregnancy evaluation, all these things are put on there and listed for you. A veterinarian I was told could help a dairyman. The dairyman would have to pay a \$10 a month base fee just to go on and it would run you somewhere between 5 and 25 cents a minute. I know in one case I did eight groups of cattle, a balance ration, and it took me about 16 or 18 minutes. But that was after I practiced a little bit. It can be fast and economical. Telephone costs may run \$15 or \$30 a month, depending how long you play around on it. And then you've got a terminal that you've got to buy, lease, or adapt a computer that you already have to get in this program. For practice option I'm using all three of these, but there is a little bit of difference in where I use them and what I'm doing. I've been forced by circumstances to look at other things besides TI 59 and that's because I am in a problem area where they might have 40 ingredients and I want a least cost ration on 40 ingredients and I couldn't figure out how I was going to do that. I can do it with a TI 59, but I have to do some preparation, so I started looking at DART and I ended up with a microcomputer, off the shelf, nothing fancy. Those are some options that practitioners can look at. A lot of it depends on what you want to do. If you're going to do straight forage type programs for smaller dairies it is going to be hard to beat the TI 59. If you are going to get in cow management and nutrition then if you are in the southeast or in the northeast you can look at one of these DHIA program optionals. The microcomputer obviously has a problem. You've got to find something that will work. So sometimes that is pretty rough when you start looking at the expense of these programs. For management it looks like to

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me that the DART is going to work out real good.

I'm using the Radio Shack and the DART, putting the DART on it using that approach without a portable terminal. I do that at my office. So I go out and do my homework and when I go out I carry my lists with me. As far as management, I have a little program with the TI 59 but there is just not enough room for me to put 600 or 700 cows on it. If you are thinking about cash flow and controlling your inventory and you are thinking about doing word-processing, if that's your objective, you're going to have to start looking at something besides a DART telephone computer or a TI59 probably. So as far as overall practice use you are going to have to look at something bigger. If you want a very flexible program with reasonable expense and it's new to you, the nutrition is new to you, the TI 59 is going to be a good start. But if you have a problem, such as going

to work in a very large dairy environment, that is where DART can be a stepping stone for you. If you want something very broad that will do a lot of things then you're going to have to step up to something larger like a small computer.

Spend a lot of time planning. Go to some meetings. Concentrate on it before you go out and make sure you know what you want to do. I have sent some letters to people telling them what I needed and requesting them to send me what their computer program would do. I spent a lot of time talking to folks before I got settled in. When you find a program you want, then buy the hardware that goes with it. That's a better approach than buying the hardware and then looking for the programs.

The DART program has some potential and it is going to expand because they are constantly updating it and improving it to provide more service.