Table 3

Retained Placentae – Single & Twin
Births Combined – 76 Cows

% Conception 1-2 Services	No. of Cows	Calving Interval (Mos.)	
		Range	Avg.
77%	59	11.1 - 14.2	12.8 mo
% Conception 3-4 Services			
16%	12	13.2 - 16.2	14.0 mo
% Open 6 Mo. Postpartum			
6.5%	5		

In conclusion, Wisconsin practitioners are aware that antibiotics and other chemotherapeutic agents can be used so effectively that forceful manual removal of retained fetal membranes is of dubious value in management of the problem and indeed may reduce subsequent breeding efficiency.

A 12 month calving interval on a herd average is considered optimum efficiency in a well managed dairy herd. With 77% of our retained placentae in this report averaging a 12.8 month calving interval this condition is not one which need cause a serious problem in maintaining a 12 month interval on an individual herd basis, assuming overall management keeps the incidence of retained placentae to a minimum. We should remember that this group of cows came from the varied management levels of 32 herds.

The 6.5% of the group which were repeat breeders and not pregnant after six months post-partum also does not stray far from what could be expected in any randomly selected group of 76 cows.

## A Practitioner's Approach to Anestrous

Robert A. Wescott, D. V.M. Elgin, Minnesota

This is a little bit awkward because Dr. Zemjanis, in his lucid, knowledgeable and comprehensive way, has covered anestrum very ably as he always does. I suppose this was intended to be the egg-head approach to anestrum and now you have a practitioner. I suppose I am supposed to tell it as it is and this is awkward because you know Dr. Zemjanis is also my boss and I am going to have to face him tomorrow and the day after; however, I think that probably the practitioner does have a little different attitude about problems such as anestrum. I think that it is one thing to know that functional anestrum is essentially a management-created problem. It is another thing to deal with it every day as a very real problem and still function effectively in the eyes of the people with whom you work. I think that practitioners regard anestrum as essentially a problem that is short lived, or quiet or invisible heats, or failure to observe, or failure to record. Even though we know this, we still have to approach it like the Rock Island Line-you know we have to ride it as we find it just as we do so many clinical situations in practice. Therefore, I think it is fair to say that as far as the practitioner is concerned, anything that we can do to increase our clients' attentiveness

toward observation of heat and then anything that we can do to direct this increased attentiveness toward an animal is ethical and fair. Now, I am really qualifying what might be some deceitful attitudes—practice attitudes—about how we can con our clients in some situations into observing and, after observing, recording heats.

There are essentially two situations in which we observe anestrum in practice: the first is the sporadic, occasional situation where we are called to take care of a cow, or two or three that are not coming into heat. This may be a rare isolated experience which we have to handle as such. The other situation is one in which we have a little bit more flexibility and control. This would be the so-called "controlled program approach" where we deal periodically with a herd where we have established a system of records and a set of criteria that allows us to select cows for examination at our discretion. I think that our approach in these two different situations varies considerably. I disagree with my respected teacher, Dr. Zemjanis, in one respect. I think that too often the statistics tend to give us the impression that these 90% of individuals that are in anestrum so to speak, are almost always invariably either the fault of the manager, his observation or his management in general. There are some very real situations in practice which we have encountered in anestrum—bonafide anestrum. I think as practitioners you will agree that in situations where nutrition is subminimal, in a fair to high producing herd, there is without a doubt a situation where the heat period tends to be short. There are very distinct situations in which, for example, heifers on a poor ration or roughage ration, a low calorie diet, definitely will show a high incidence of anestrous and this is in every sense a bonafide functional anestrum.

When they are examined rectally we find a high instance of what appears to be ovarian stasis-very little ovarian activity and to support that point of view even farther, when we modify the ration for these animals by increasing the caloric intake per head today on these heifers that are of breedable age, then within a very short time we see a dramatic reduction in the incidence of anestrum which would support the idea that it is a very real problem in certain practice situations. To labor this point of prognostication may have limited value, but let me say this about it from two standpoints: people who are competent and confident of their ability to prognosticate based on their examination of rectal findings, and those who do not feel quite that comfortable about it and, at Roger's suggestion I polled 30 or 35 of my colleagues and discussed briefly some of their attitudes about anestrum, I found that there is a practice that still exists among practitioners which involves the use of very high levels of estrogen without rectal examination routinely when they encounter a complaint about anestrum. Rather than evangelize I will simply say that it is probably poor practice procedure and poor judgment to use estrogens indiscriminately, especially high levels of estrogen without a rational based on rectal examination. You would have difficulty explaining and supporting that position, however, as far as prognostication is concerned. I do not think it is essential that we have to have a capability for prognosticating that allows us to hit it within a day or two. There are many ways that we can fortify our ability to prognosticate and these have worked very well for me and my neighboring practitioners and other colleagues. I would just like to go through them with you. We talked about increasing the attentiveness of the farmer and directing that increased attentiveness to his problem animals. There was a "fad" about 10 or 12 years ago of using thyroid to increase the intensity of heat signs and I jumped on the bandwagon as well as everybody else. After using a lot of thyroid, I

thought it would be interesting to see whether the thyroid was doing anything or whether it was imagination, so I asked a pharmacist friend if he had some dextrose caps. He said he had some outdated gelatin capsules containing an antacid which he was selling and they were big 500 milligram capsules which are very attractive. He gave me about 12,000 so instead of using thyroid I started to use the gelatin capsules and I had the owner of this anestrum animal empty the contents on the feed twice a day starting about four days before the predicted heat and you know, all of a sudden I found that I had a very popular product on my hands. We had to reorder the gelatin capsules and this is the interesting point though that I think is worth remembering. The point Dr. Zemjanis made is not true but it is becoming more true and more exaggerated all the time and that being that the lands and the herds are increasing. The facilities for building and feeding and managing animals are designed in such a way so they are taking the herdsmen away from their livestock and, consequently, we are going to be faced with more and more problems involving anestrum. So, anything we can do to accommodate this is going to be helpful.

The use of estrogens in my practice have usually revolved around the situation where I have given up on prognosticating if I can palpate per rectum an animal with palpable follicles usually in the last half of the folicular part of the cycle. I will induce heat and usually estrum will occur in 48 hours with a conception efficiency of 38 to 40%. Now, it is not as high as it would be under normal heat and breeding circumstances, but at least we have started. I think this is probably one way that you approach your clients' problem-by doing something rather than simply philosophizing about his inadequacies in observing those heats! Another helpful factor is the use of follicle stimulating hormones (FSH). Many times rectal palpations will reveal no ovarian activity and, on the basis of one examination, you stick your neck out and assume that the ovaries are static. The use of FSH in about 60% these situations, as Dr. Zemianis mentioned, will produce heat within 20 days which usually satisfies the owner. Not enough could be said for periodic examination and a good system of records. There is probably no single approach, no single attitude about anestrum and infertility control in general that is as effective and has as much impact upon the herd operator as far as educational value, as a good system of clinical records.

I am almost reluctant to bring up this point of recognizing symptoms of heat but it always amazes

me among my own clients how very little these dairy men know about what a heat looks like. For example, it is not uncommon to tell a dairy man than an animal in receptive heat will never lie down-it never occurred to him! They are always standing and, furthermore, they are hyperalert. They will just snap the stanches to turn over and watch you go by them. They are excitable when you work with them; they don't stand still like a docile, contented cow-they are bouncing around, but I do not mean to extend this to you as information that you do not know. I think that too often we work with problems that become so mundane and commonplace as anestrum, that we fail to convey to the owners some of the very simplest and most effective aspects of the problem that would help them out.

The last item that I wish to mention to those people that have difficulty predicting heat

accurately or who do not feel very confident about it, is the use of heat indicators. It is a very, very effective approach in my estimation to make your rectal evaluation, predict the heat and then at a point of three, or four, or five or six days, depending upon how accurate you feel about your prognostication, have the owner apply a heat indicator. This, I think, is invaluable. For one thing you know it is an interesting point that these owners will complain to you that their animals are going through silent heats. You examine them and find that they are cycling and prognosticate and miss it by a mile. They jump all over you and you just have to come back with the same thing! You are right, those heats are silent but there is one thing about the indicators which is very helpful. when you are beginning your prognostication. If you happen to miss it and he starts to lose his attentiveness toward that animal, he can pick it up with the indicator a little later on.

## Medications and Hormones For Reproductive Problems

RICHARD C. KORITANSKY, D. V.M. Fond du Lac, Wisconsin

The following comments are on reproductive therapy used by five herd health oriented practices in Northeastern Wisconsin (1). New developments such as Prostaglandin and Gonadotrophic hormone releasing factors may be interesting products for the near future, but as yet, we must deal with the present.

I do not believe in hormones and reproductive treatments if ideally we are communicating with our dairy partner clients. However, everything is not ideal. But it is our feeling that proper nutrition and reproductive health management reduces reproductive complications and increases reproductive efficiency and income for the dairyman.

Metritis will be simply defined as occuring within 2-3 weeks postpartum. Our experience shows a decreased incidence with proper handling of retained placentas, plus good management on the part of the dairy man. Treatment regimes are as follows:

1. Infusion of 1-3 grams of TETRACYCLINES in 300-500 cc of water.

- 2. Infusion with HYDROGEN PEROXIDE plus the IM injection of 10-20 mg DIETHYL-STILBESTEROL.
- 3. Infuse 500 cc of the following solution: one gallon Triple Sulfas of Sulfamethazine; 1½ tsp of Neoprontosil Powder; 500 cc alcohol; 5 gm Tetracyline; 10 mg Aqueous Estradiol.
- 4. Supportive therapy with the above, plus draining the uterus, etc.
- 5. Nutrition—comments will follow later in this paper.

Endometritis or Purulent discharge defined simply as uterine infection detected on herd exams over two weeks postpartum. Several practitioners feel that any cow discharging over two weeks needs treatment. Treatment is done both to increase reproductive efficiency plus quickly reach maximal milk producing potential. Therapy as follows:

 Infusion of 100-200 cc of NFN solution (a) NFN solution, 1½ tsp Neoprontosil Powder, 20 gm Neomycin, 1 gallon Furacin.