

WHAT DO YOU NEED? BASIC EQUIPMENT REQUIRED TO ADD THERIOGENOLOGY SERVICES TO YOUR GENERAL PRACTICE

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Introduction

Excellent breeders make excellent clients. They are very dedicated to their dogs and generally will pursue the best diagnostics or course of action when needed. High end breeders have a considerable investment emotionally as well as financially in their dogs. Veterinary clinics providing canine reproductive services will often find many breeders listed in their year end list of top clients. Adding canine reproductive services to your clinic should be a rewarding experience.

Diagnostic Tools

Reference Lab: Suitable outside lab for hormonal profiles, Brucellosis AGID, biopsies and cultures. You will need same day or at least overnight serum progesterone results. Uterine and testicular biopsies should be sent to a pathologist familiar with their interpretation. Check with your lab in advance. Cornell Diagnostic lab is one source for biopsies.

Brucellosis testing: RSAT test available from Synbiotics D-Tec CB .

Progesterone testing: If timely outside lab results not readily available, in-office test kits can be used. Synbiotics Stat-Pro™ or Biometallics Target™ test kits available.

LH Testing: Synbiotics Stat-LH™. LH testing is an added degree of accuracy usually reserved for high stakes fresh chilled and frozen semen breedings. Is especially useful for new “timers”.

Vaginoscopy: Welch Allyn 11mm x 25cm Rigid Sigmoidoscope model 32020

Ultrasound: Timely access needed for pregnancy diagnosis, pyometra/uterine disease diagnosis, prostate evaluation, testicular and ovarian disease diagnosis.

Semen Morphology: Dif-Quik® type stain set is suitable for morphology assessment.

Hand held cell counter: For morphology and sperm counts

Hemocytometer: For sperm counts

Unopette® System 5853:

Microscope slides (frosted and clear)

Coverslips 22x22mm

Binocular microscope (10x, 40x, 100x)

Emersion Oil

Slide warmer

Semen Collection and Insemination

Disposable Artificial Vaginas: They are inexpensive and non-spermicidal.

Insemination pipettes: You can purchase standard canine lengths or cut your own.

Semen Extender: It is often advantageous to add semen extender to semen even for routine inseminations. My personal favorite is Synbiotics Fresh Express™ extender because it has gone through Millipore filtration and has antibiotics

added. It can be stored in the refrigerator for at least a month or alternatively be refrozen.

Ovulation Timing

Vaginoscopy: Vaginoscopy is a very valuable tool. It provides one of the best diagnostic aids to determine immediately where a bitch might be in her heat cycle. The changes in the lining of the vagina are usually dramatic between pro-estrus, the beginning and end of estrus. It is a very easy skill to learn and is a very quick and short procedure.

Exam Gloves: Digital vaginal exams are necessary to pick up the various types of vaginal septums and strictures found.

Cytology: Diff-Quik® Stain Set. Although we have come a long way since the days when we only relied on this one tool, it still has diagnostic value.

Fresh Chilled

Fresh Chilled extender and shipping kits: In the USA there are several commercially available systems available. The top ones are Synbiotics, ICSB (International Canine Semen Bank), CLONE, k9-Cryobank and Camelot Farms. All the systems have recognized success rates. Success is more determined by the involved veterinarian(s)' ability to properly collect, process, package and select breeding days than by what system is used.

Slide warmer: Semen cannot be properly assessed without one. In a pinch a heating pad on low can be used.

Permanent markers: All samples shipped need proper ID.

Frozen Semen

LN2: Access to the source is needed for times when the shipping dewar needs to be maintained past the safe time.

Cryoprotectant gloves or insulated gloves: Needed for safety.

1-3 ml sample cups or tubes: Needed for thawed sample.

Whirl-pak bags: Used for thawing frozen pellets.

Hemostats or forceps: For handling straws.

Thaw Bath: If doing breedings regularly, invest in thaw unit. Can use open mouth soup-type thermos jar and a thermometer if needed.

Storage Dewar: For practices regularly performing frozen semen breedings, this is a good investment. You will be able to transfer semen on arrival or store short term when needed.

Surgical Procedures

C-section. Your number of c-sections will increase proportionally to the clinic's reproductive services increase. Develop a good system to assure the highest degree of survivability for both the bitch and puppies. An incubator is a valuable addition. If you don't have one have a suitable warmer box ready for pups.

Fetal Heart Rate Doppler: If you do not have in clinic ultrasound this is a good investment. It allows you to monitor fetal viability and stress. Some clinics will send home with breeder to provide important clinical information.

Uterine contraction monitoring: Currently available through Whelp-wise™. You can rent equipment from them or have your client rent directly from them.

Intra-uterine inseminations: A simple procedure that does not require any additional equipment.

Advanced options

TCI (Transervical insemination) Requires:

Monitor and camera for viewing motile semen: Is very useful for client education. Also facilitates morphology evaluation.

Automated Sperm cell Counter: There are several available. The price has come down significantly and is always a welcome addition.

AKC Recognized Canine Freezing Center: This is the next logical step once you are achieving consistent results with fresh chilled and frozen semen breedings. By itself it is not necessarily a big income source but it increases related services.

Canine Reproduction Supplies Source List

Slides (Frosted/Unfrosted) Cover Slips Cotton Swabs Kim/Laboratory Wipes Pasteur Pipettes Stain Set (Diff-Quik®) AI Pipettes LN2 Tanks Camera for eyepiece Whirlpaack bags	For Disposable AV's: End Cones Tail Docking Rings Disposable centrifuge Tubes 15 ml Centrifuge Tubes(with caps) Thaw Bath Slide warmer Sperm cell count	Reproduction Resources 1-800-331-0195
Unopettes Hemocytometer 15ml Polystyrene Centrifuge Tubes Sample Cups (#15070-290) Slide Warmer	Test Tube Holder Test Tube Rack Hand Held Cell Counter Bulbs	Fisher Scientific 1-800-766-7000, www.fishersci.com VWR Scientific Products 1-800-932-5000, www.vwrsp.com
Fresh Express Extender D-Tec CB (Brucellosis test) Disposable Semen Collection Kit	Status-LH® Status-Pro® Witness® Relaxin	Synbiotics Corp 1-800-228-4305, www.synbiotics.com
Progesterone test kits		Synbiotics Corp. Stat-Pro 1-800-228-4305, www.synbiotics.com Camelot Farms Pre-Mate 1-800-ALITTER www.camelotfarms.com Biometallics TARGET Princeton, NJ
Fresh Chilled Extender and Kits (most common sources)		Synbiotics Corp. 1-800-228-4305, www.synbiotics.com ICSB 1-503-663-7031 www.ik9sb.com CLONE 1-610-458-5888 www.cloneusa.com Camelot Farms 1-800-ALITTER www.camelotfarms.com Caninecryobank 1-760-591-9909 www.caninecryobank.com
Vaginoscope: Proctoscope Model # 32020 Adapter for hand held light source Model#42		Welch Allyn http://www.welchallyn.com/medical/products/catalog/detail.asp?ID=25650
Liquid Nitrogen (LN ₂)		Local Medical Gas Supplier Local Welding Supply Company Local Bull AI Service