

Ultrasound Information

Ultrasound Machines:

Easi-Scan: Battery operated, portable (6.5 lbs) using video monitor glasses. The durable 4.5MHz-8.5MHz linear rectal probe has 128 elements. Easi-Scan is manufactured by BCF Technology Ltd and distributed in the US by Steuart Laboratories Inc 1440 Energy Drive. Preston, MN 55965 Tel: 001 507 886 2661 Fax: 001 507 886 2762 Email: steuart@harmonytel.com.

Bantam LM: Similar to the Easi-Scan, this machine is manufactured and distributed by E. I. Medical 348 North Jefferson Loveland, CO. 80537 **Phone:** (970)669-1793
Email: info@eimedical.com

Sonosite Vet 180 Plus: This is the preferred machine for teaching because of the 4 X 6 inch tiltable screen display. Extra features include color doppler, a full keyboard for entering and saving patient data, and a broadband transducer. Products Group International, Inc. 447 Main Street P.O. Box 1807 Lyons, Colorado 80540 Toll Free 1-800-336-5299; 303-823-6330; Tel; 303-823-6339 Fax

Example of a Timed Insemination Protocol

The following chart outlines one potential program using timed insemination, early detection of open cows using ultrasound, and systematic resynchronization of open cows.

	WK	MON	TUES	WED	THU	FRI	SAT	SUN
PRESYNCH	1		PGF					
	2							
	3		PGF					
	4							
OVSYNCH	5		GNRH					
	6		PGF			GNRH/TAI		
	7							
	8							
	9							
	10							
ULTRASOUND CHECK 33 DAYS POST TAI	11		ULTRASOUND PREG CHECK OPEN: GNRH					
RESYNCH OPEN COWS	12		PGF			GNRH/TAI		

Comparison of the economics of traditional heat detection programs with timed insemination programs in a theoretical herd.

Nebel's assumptions for his economic model were as follows:

Visual heat detection: 40% heat detection rate, 40% conception rate (CR), VWP=60 days, cows open at 300 days no longer bred

Timed insemination program: 75 days to first service, 40% CR at first cycle, timed insemination 43 days after (unsuccessful) previous service with 33% CR at the 2nd and 3rd synchronization cycles, and visual heat detection thereafter; cows open at 300 days no longer bred.

Table One: Comparison of Visual Heat Detection and Systematic Timed AI for a Herd of 250 Cows

	Visual HD	OvSynch	PreSynch
Annual cost, \$	11,801	17,221	18,507
Unadjusted cost per pregnancy, \$	55.40	73.66	78.59
# of repro culls	37	16	15
Avg. days open	162	122	116
\$ per day open > 85 DIM	3.16	1.16	1.02
Adjusted cost/pregnancy, \$	298.35	115.39	110.49

Adapted from Nebel RL, McGilliard ML, French PD, Saltman RL. Economic impact of systematic breeding programs and factors to consider in program selection for the reproductive management of dairy cattle. Proc Ann Conf Society for Therio, Columbus, OH, pp 371-379, 2003.