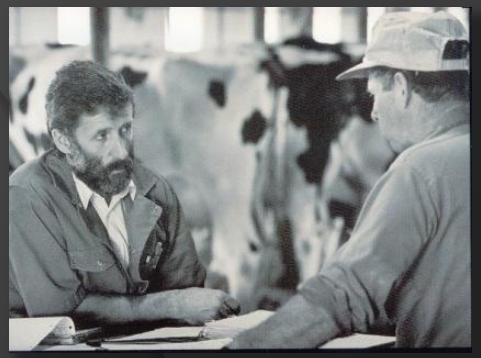
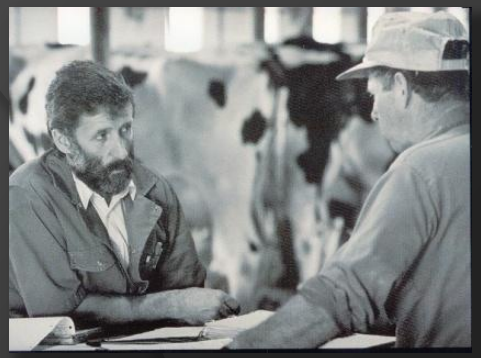


UDDER HEALTH MONITORING…

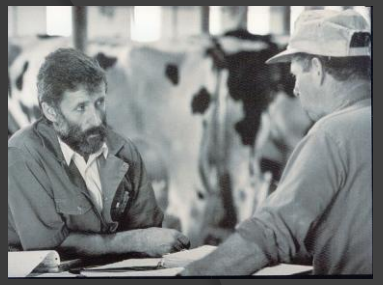
…The Art and the Science

Vincent Caldwell
Clinique Vétérinaire de Coaticook
ABPA, November 2010



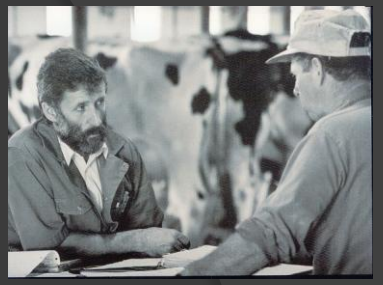
Objectives, Challenges…

Objectives vary…



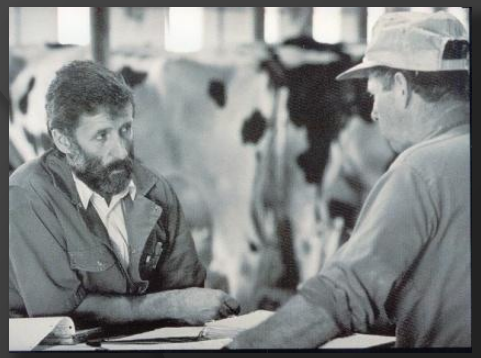
- And my work varies accordingly
  - Not to be penalized…
  - Qualify for 0,50 $ / hl premium (< 300 SCC)
  - Decrease incidence of mastitis
  - Maintain SCC below 150

Challenges…

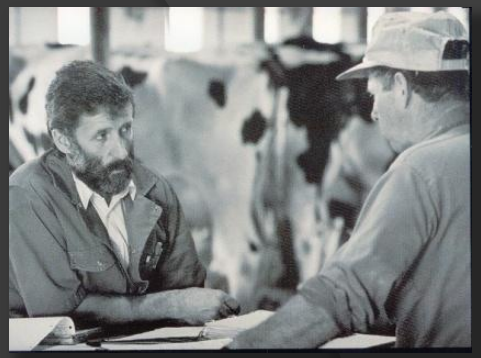


- So many variables to control !
- Easy to lose motivation / time
- Vet-Client contact limited
  - Many vets will neglect or periodically neglect
  - Routine, Routine, Routine…

The data

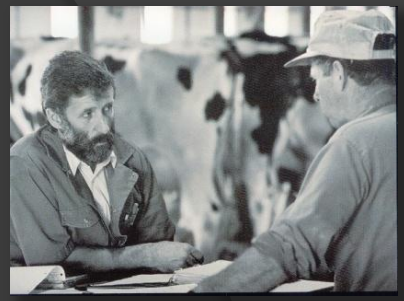


The data…

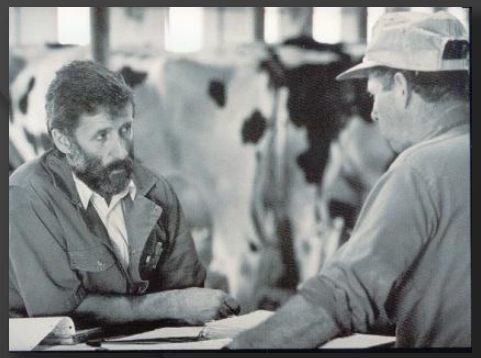


- Valacta SCC (quasi-essential…)
- Cultures + Petrifilms
- Mastitis events + incidence
- Treatment info.
- Observation
  - Hygiene
  - Teat ends
- Lactocorder graphs

Who to culture…



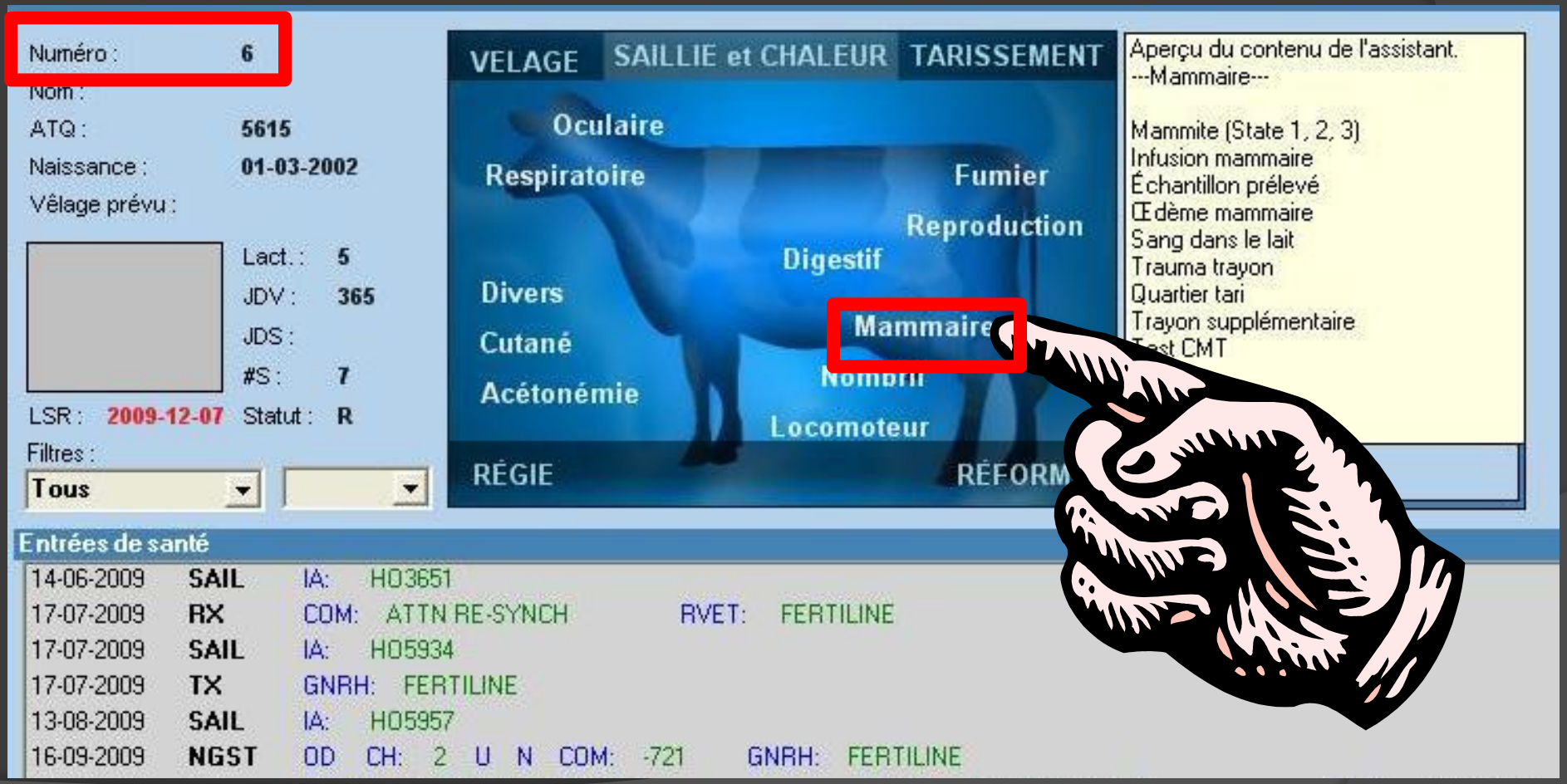
- Vet school training vs. Real world
  - Systematic at calving ?
  - When problems occur ?
  - Strategic targeting at every visit.
- Petrifilms
  - Staph Xpress (at CVC not on-farm)
    - In herds where *S.aureus* segragation is organized.
  - TAC and CC
    - Not yet, eventually, need SOPs to make it worth it



Data Collection Tools

Treatment entry...

- CQM actually helps us

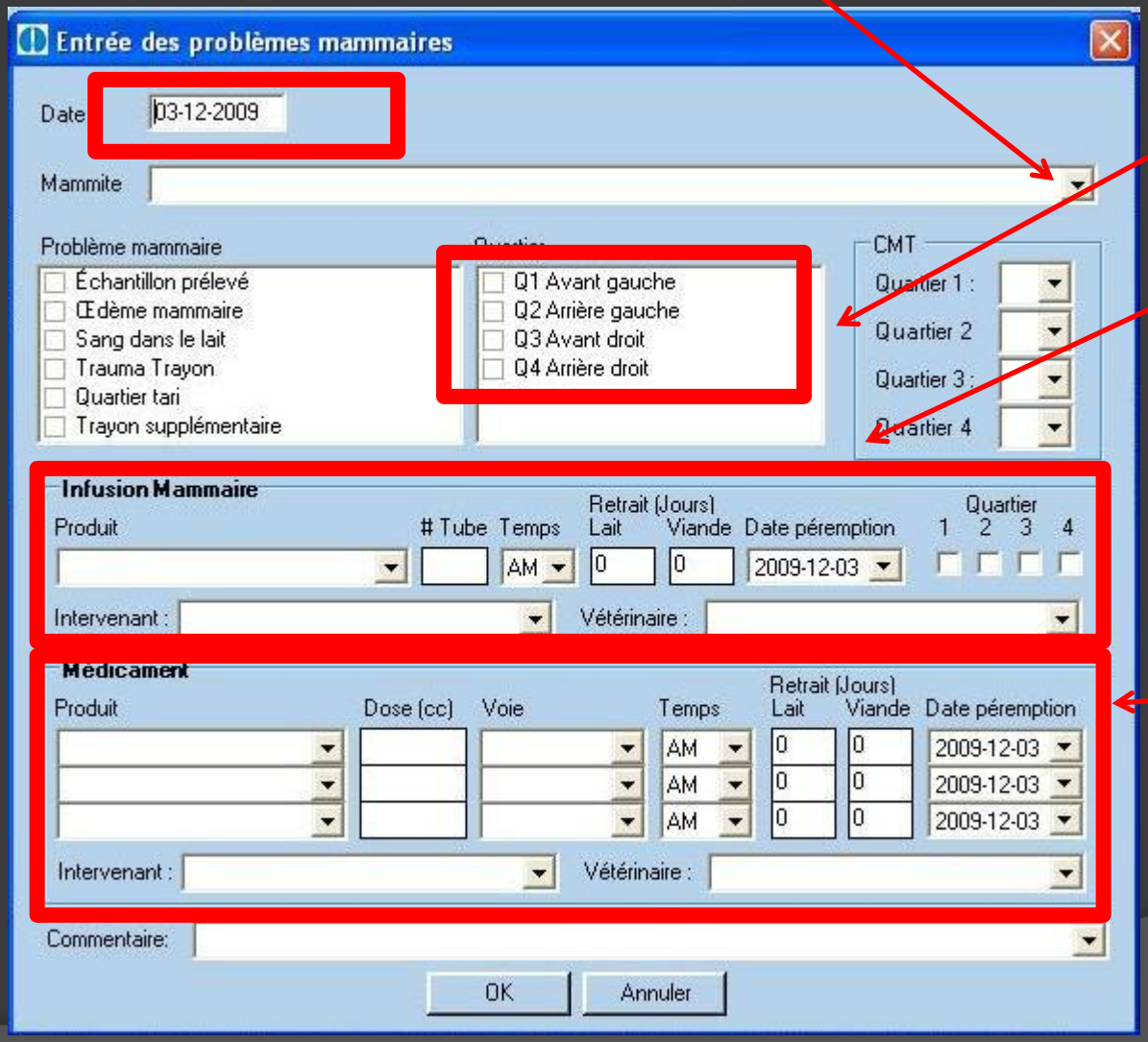


Type 1, 2 or 3 ?

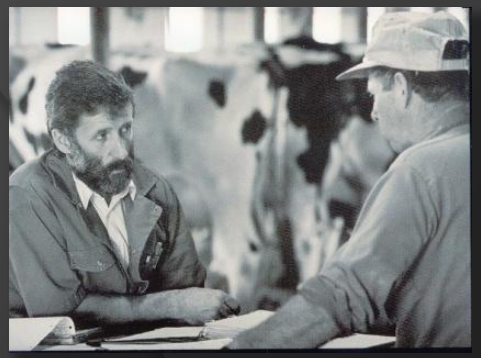
Which quarter ?

CQM info if Imammary tube

CQM info if systemic Tx

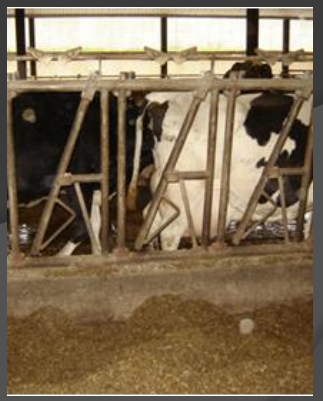


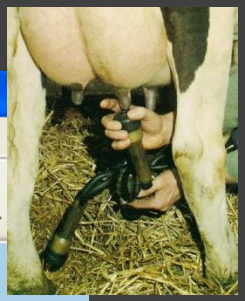
During and between HH visits…



Standard approach…

- Beginning of visit
  - 2 minutes discussion SCC graph + paycheck +/- Handshake
  - 2 minute « Bulk-tank contribution list » screening
  - Selection of cows for CMT
- During Repro exams
  - CMTs, cultures, recommendations for…
    - Treatment
    - Milking order
    - Culling





DSA-Laitier-Windows / Troupeau: STIRNIMANN, PHILIPP (STIRNI) - [Régie]

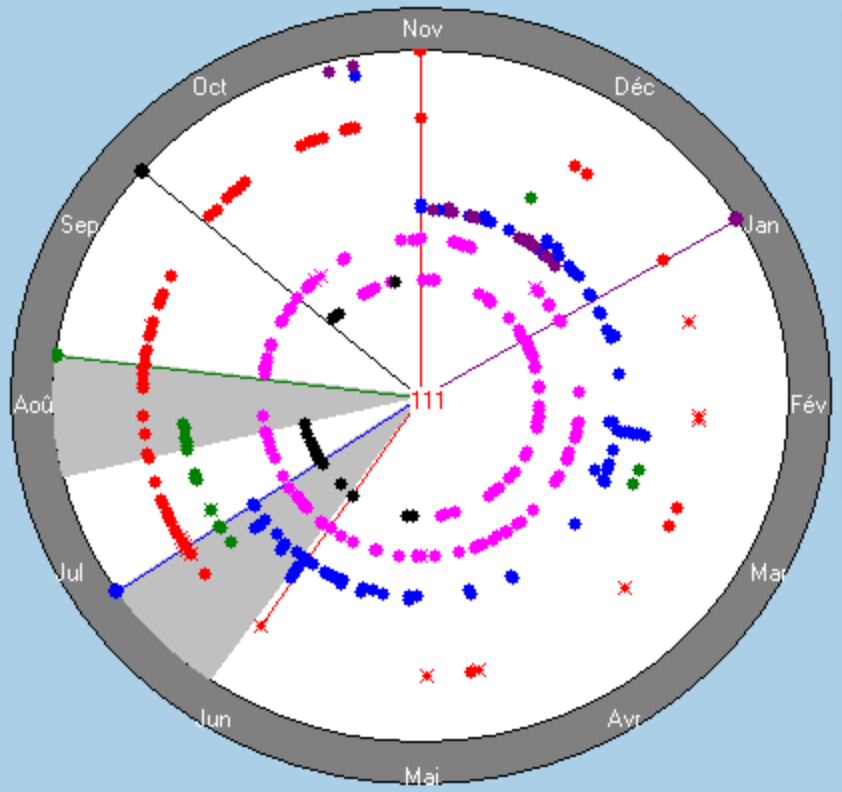
Fichier Entrée Rapport Graphique Outils Analyse Configuration Module mammite Aide

Ouvrir Sauver Récupérer Entrée Groupe Production Réservoir Inventaire Examen Alarme Notes Quitter

Tous

Régie \grap\Ccsres.eb

Numéro	Nom	Contrôle
111	111-714853	356
116	116-714853	359
521	521	513
849	849-T69	522
851	851-T71	515
852	852-T72	504
1474	1474	648
1482	1482	638
1487	1487	649
1493	1493	694
1501	1501	665
1581	1581	550
1613	1613	559
1627	1627	573
1674	1674	1002
1677	1677	1001
1702	1702	742
1704	1704	743



Vêlées 84
Saillies 22
Gestantes 79
Tarie GST 18
Génisses 149
Veaux 21
373
Voir le bloc

DATES- BOLUS RUMENSIN [E
CCS_Tar_Vela [ccscompfinal.e
L2S-1 vs L2S1
Distribution du CCS
CCS TAR vs CCS VELA
INVENTAIRE [ccscompfinal.PE
Statut microb. vs. % CCS réserv
Vaches à vacciner rota-corona
Production par groupe d'âge et

Intervention list (Top of list)

Bact. status

% Bulk tank SCC

Focus on critical cows

CMT

- New high contributors of unknowm status

« Tag » cows

Monitor treatment compliance

num	NOM	L#	JEL	SANTE_PIS	PROD	CCS		%RES	TEST
4692		2	184	E.COLI	26.4	9165	241956	22.523	15-09-10
4698		2	116		29.6	6139	181714	16.915	15-09-10
3491	3491	3	369		20.8	4579	95243.	8.866	15-09-10
3279	3279	2	211	S.AUREUS	38.2	2344	89540.	8.335	15-09-10
4644		2	123		25	1613	40325	3.754	15-09-10
851	851-T71	6	177	TEAT_TRAUMA	30.8	1233	37976.	3.535	15-09-10
3265	3265	2	354	S.SPP	23.8	1243	29583.	2.754	15-09-10
849	849-T69	7	288	CULT_IF_HI	21.4	1301	27841.	2.592	15-09-10
1482	1482	5	126	S.AUREUS	34.2	790	27018	2.515	15-09-10
4633		1	386		16.2	1638	26535.	2.470	15-09-10
9428		2	212		31.6	435	13746	1.280	15-09-10
5909	5909	4	301	S.BOVIS+S.SP	30	455	13650	1.271	15-09-10
4674		2	299		31.4	346	10864.	1.011	15-09-10
4603		1	304		31.2	264	8236.8	0.767	15-09-10
111	111-71485	8	147	S.AUREUS	33.4	240	8016	0.746	15-09-10
0617	0617	3	116	S.DYSGAL	40.6	177	7186.2	0.669	15-09-10
5898	5898	4	245		34	202	6868	0.639	15-09-10
4624	4624	1	298		25.6	252	6451.2	0.601	15-09-10
0655	0655	3	331		32.2	193	6214.6	0.578	15-09-10
8960		2	265	S.AUREUS	31.2	197	6146.4	0.572	15-09-10
8943	8943	2	361		19.8	279	5524.2	0.514	15-09-10
3495	3495	4	235	S.AUREUS	31.2	173	5397.6	0.502	15-09-10
4613		1	298		26.6	200	5320	0.495	15-09-10
8495	8495	6	335	S.SPP	28.4	178	5055.2	0.471	15-09-10
4631		2	99		40.8	116	4732.8	0.441	15-09-10

Intervention list (Top of list)

Bact. status

% Bulk tank SCC

Focus on critical cows

num	NOM	L#	JEL	SANTE_PIS	PROD	CCS		%RES	TEST
4692		2	184	E.COLI	26.4	9165	241956	22.523	15-09-10
4698		2	116		29.6	6139	181714	16.915	15-09-10
3491	3491	3	269		20.8	4579	95243	8.866	15-09-10

&U#:200h

9

18-04-2010 SAILF IA:151HO5739;MIDNIGHT;USAM1363384

MOY COM

06

valle 04-06-2010 GST GEST REX VET:VC

28-06-2010 GST

.M13719903

Gras	Prot.		Reproduction		FV	RP	M	MA	DC	A	Bo
			1	(32)	-	-	-	-	-	-	-
4.5	3.3	(5)	2	(378)	-	-	-	-	-	-	-

Mars	Avr.	Mai	Juin	Juil.	Août	Sept.	Oct.
31.4	33.4		31.8		27	16.2	
36	15		16		26	1638	

0655	0655	3	331		32.2	193	6214.6	0.578	15-09-10
8960		2	265	S.AUREUS	31.2	197	6146.4	0.572	15-09-10
8943	8943	2	361		19.8	279	5524.2	0.514	15-09-10
3495	3495	4	235	S.AUREUS	31.2	173	5397.6	0.502	15-09-10
4613		1	298		26.6	200	5320	0.495	15-09-10
8495	8495	6	335	S.SPP	28.4	178	5055.2	0.471	15-09-10
4631		2	99		40.8	116	4732.8	0.441	15-09-10

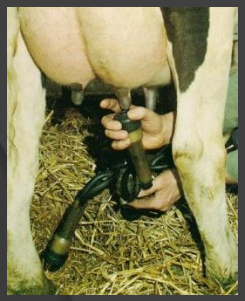
Intervention list (Bottom)

- Culture (Petrifilm)
  - Fresh *S.aureus* cows that have very low SCCs

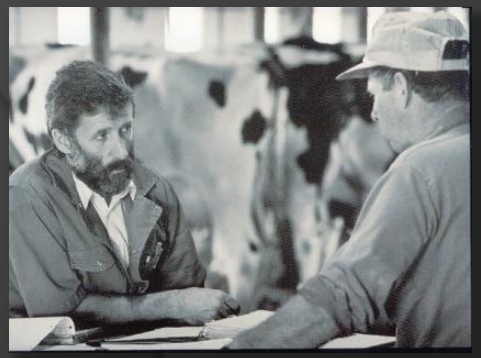
During the visit, the CMT's and cultures are the moment I use to evaluate teat ends + hygiene

7886	7886	1	456		17.5	64
23	23	9	111	S.AUREUS	31.2	30
2026	2026	1	53		30.1	29
7786	7786	3	93	S.SPP	34.6	24
7908	7908	1	253		15.6	50
7784	7784	3	259		26	28
7896	7896	1	248		30.5	21
7847	7847	2	336		16.7	38
1990	1990	1	180		25.7	23
1997	1997	1	143		23.1	22
7866	7866	2	52		31.6	15
7876	7876	2	66		35.3	13
7826	7826	3	84	ENVIRO+MALAD	21.6	18
7887	7887	1	463		16	24
2020	2020	1	74		26.4	14
7846	7846	2	141		35.7	10
7890	7890	1	286		20.5	17
7821	7821	2	193		24.6	12
1991	1991	1	52		35	8
7907	7907	1	230		24.6	9
7903	7903	1	265		21.6	9
7914	7914	1	283		15.6	12
7898	7898	1	315		19.3	6

END OF VISIT...

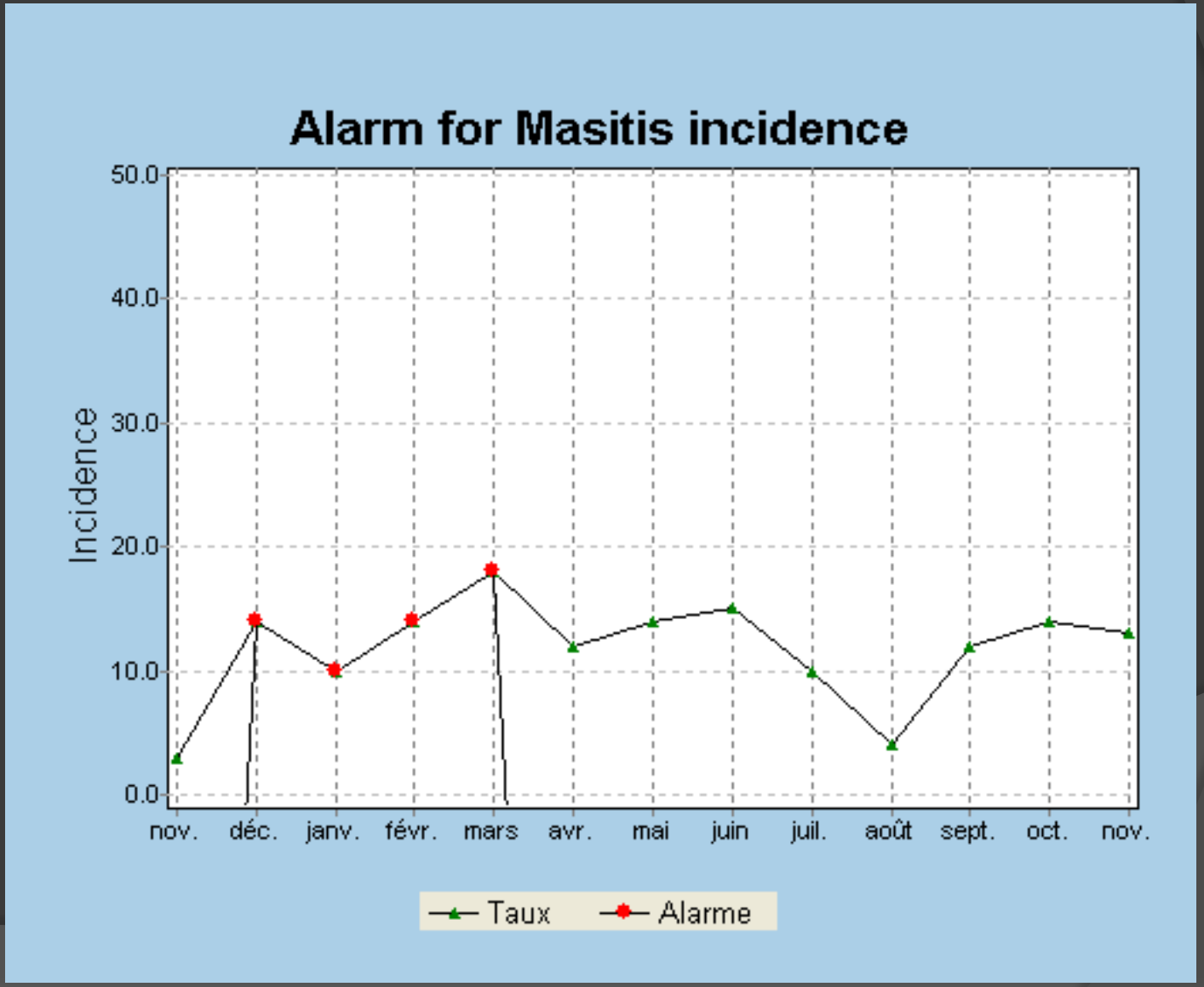


Date	Animal	Information sur le traitement
2010-11-11	7866	CHAL: Basé sur prostaglandine
2010-11-11	2041	VDIV:SCOURGUARD 2E DOSE
2010-11-11	2080	IA AM BELLE CHAL SEUL.
2010-11-11	9940	IA AM BELLE CHAL SEUL.
2010-11-12	7877	KETOTEST ?
2010-11-12	7847	TRANSILAC A COMMENCER
2010-11-12	7811	PIRS. 3X 48 H APART + NOVODRY
2010-11-13	5023	CHAL: Retour de saillie
2010-11-14	7826	CHAL: Basé sur Chaleur précéd
2010-11-14	7811	CHAL: Retour de saillie
2010-11-14	7823	VDIV:SCOURGUARD 2E DOSE
2010-11-14	7826	SURV IA

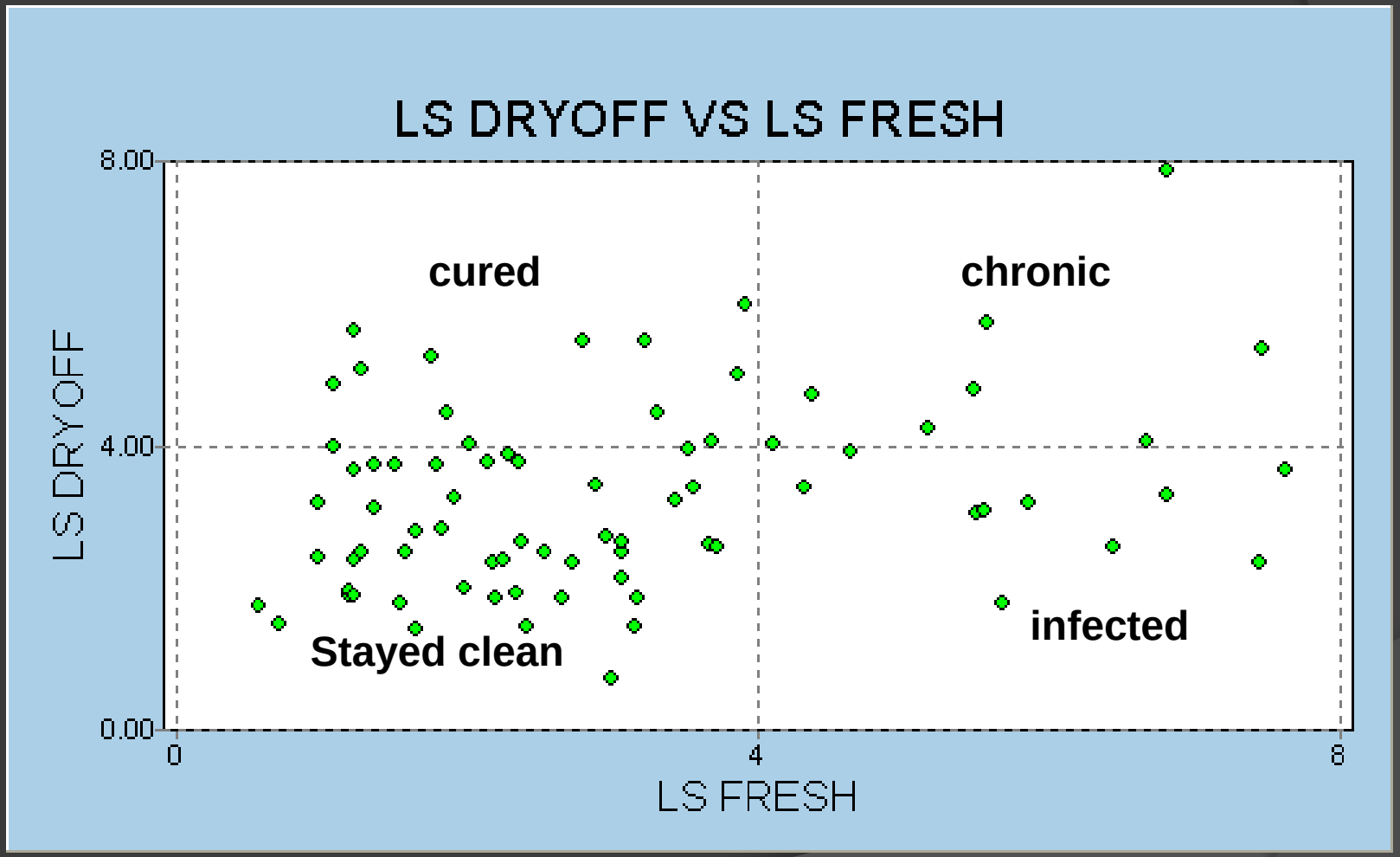


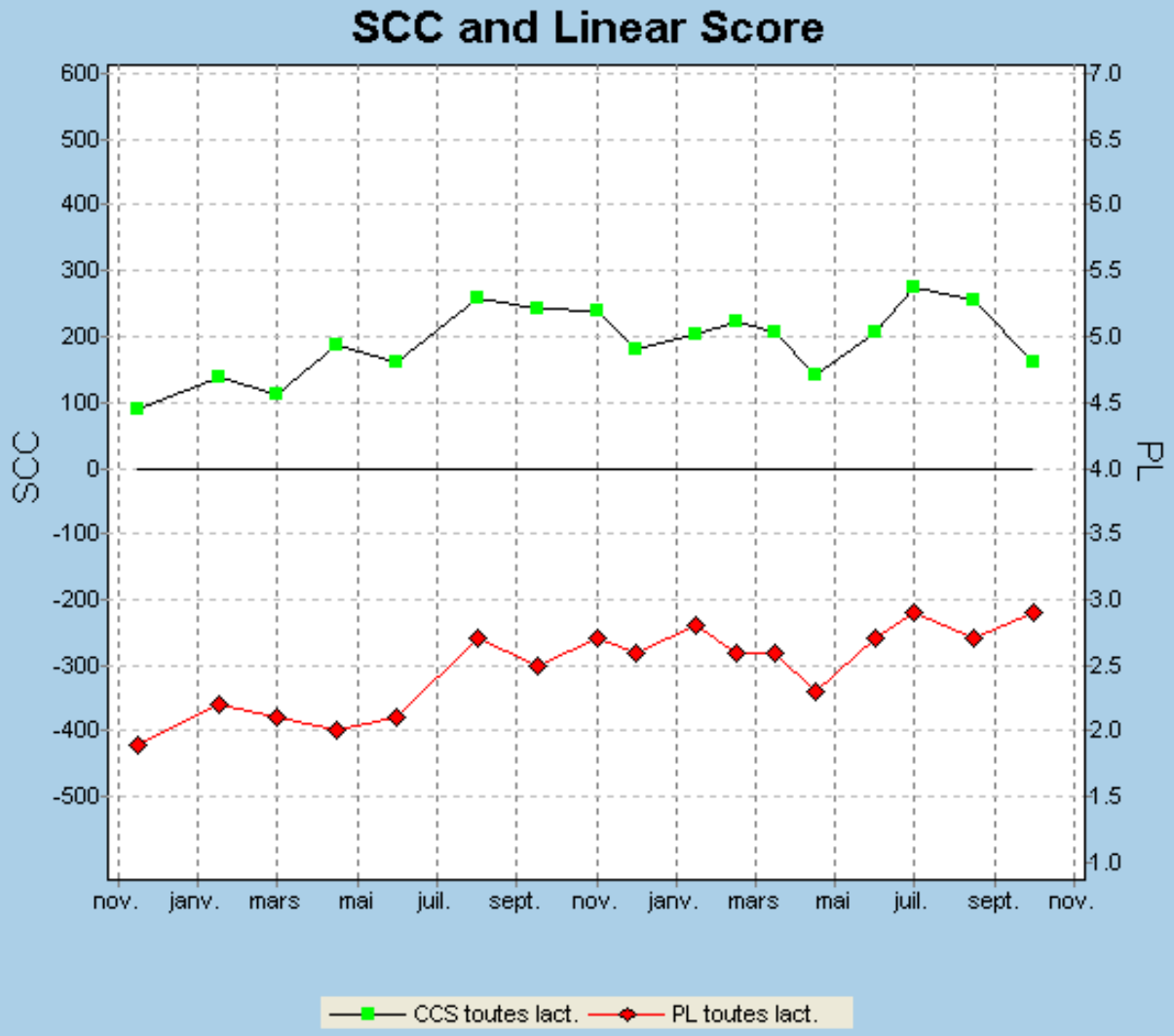
Monitor / analyze…

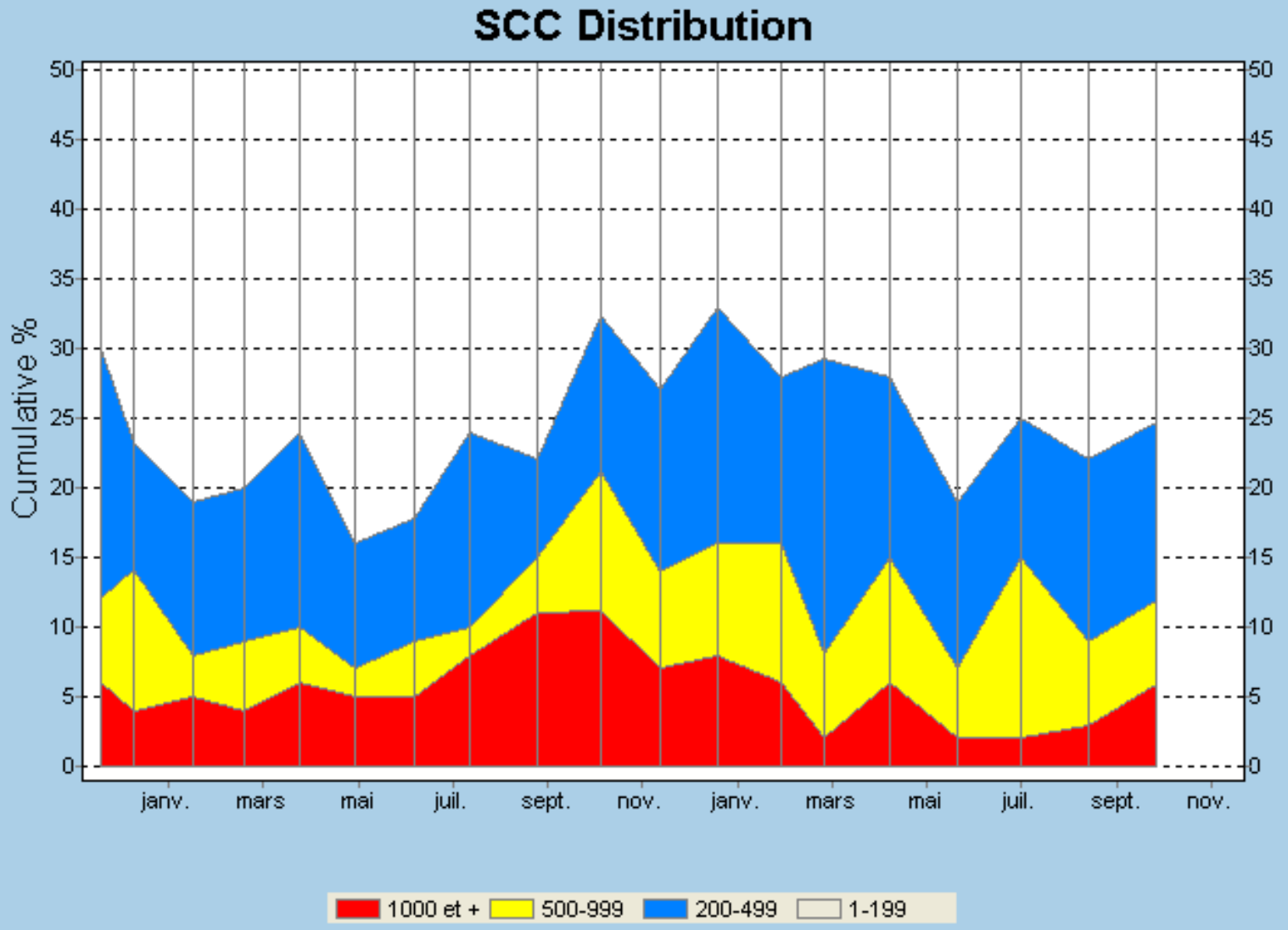
MONITORING /ANALYSIS



MONITORING /ANALYSIS

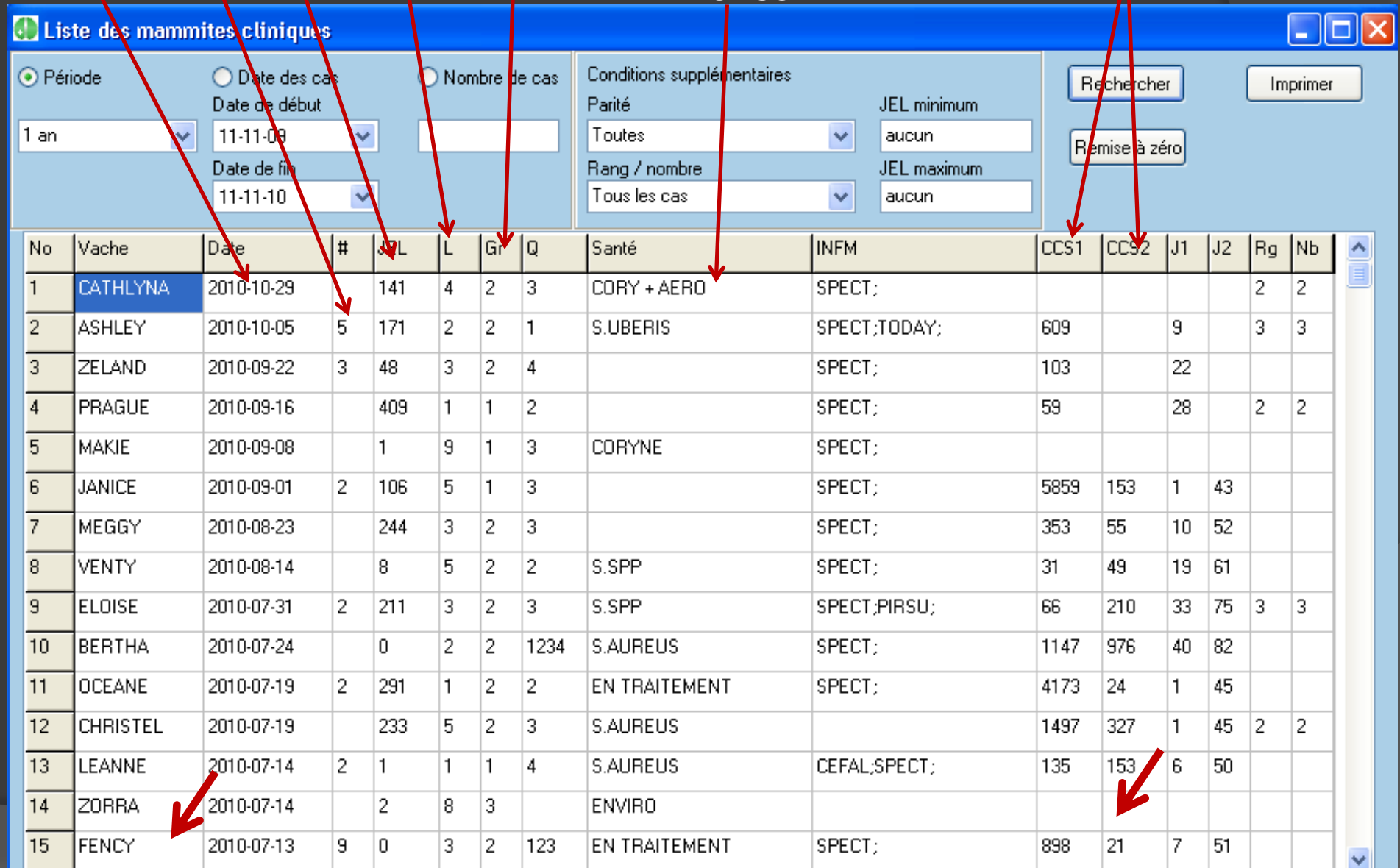



SCC and Linear Score
SCC
PL
600
500
400
300
200
100
0
-100
-200
-300
-400
-500
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
nov.
janv.
mars
mai
juil.
sept.
nov.
janv.
mars
mai
juil.
sept.
nov.
CCS toutes lact.
PL toutes lact.


SCC Distribution
Cumulative %
0
5
10
15
20
25
30
35
40
45
50
janv.
mars
mai
juil.
sept.
nov.
janv.
mars
mai
juil.
sept.
nov.
1000 et +
500-999
200-499
1-199

Mastitis module…

- Possibility to search and analyze cases of clinical mastitis
  - DIM ?
  - Case 3 (1st, 2nd or chronic…)
  - Lactation #
  - « Severity » (type 1,2 or 3)
  - Treatment success



No	Vache	Date	#	JEL	L	Gr	Q	Santé	INFM	CCS1	CCS2	J1	J2	Rg	Nb
1	CATHLYNA	2010-10-29		141	4	2	3	CORY + AERO	SPECT;					2	2
2	ASHLEY	2010-10-05	5	171	2	2	1	S.UBERIS	SPECT;TODAY;	609		9		3	3
3	ZELAND	2010-09-22	3	48	3	2	4		SPECT;	103		22			
4	PRAGUE	2010-09-16		409	1	1	2		SPECT;	59		28		2	2
5	MAKIE	2010-09-08		1	9	1	3	CORYNE	SPECT;						
6	JANICE	2010-09-01	2	106	5	1	3		SPECT;	5859	153	1	43		
7	MEGGY	2010-08-23		244	3	2	3		SPECT;	353	55	10	52		
8	VENTY	2010-08-14		8	5	2	2	S.SPP	SPECT;	31	49	19	61		
9	ELOISE	2010-07-31	2	211	3	2	3	S.SPP	SPECT;PIRSU;	66	210	33	75	3	3
10	BERTHA	2010-07-24		0	2	2	1234	S.AUREUS	SPECT;	1147	976	40	82		
11	OCEANE	2010-07-19	2	291	1	2	2	EN TRAITEMENT	SPECT;	4173	24	1	45		
12	CHRISTEL	2010-07-19		233	5	2	3	S.AUREUS		1497	327	1	45	2	2
13	LEANNE	2010-07-14	2	1	1	1	4	S.AUREUS	CEFAL;SPECT;	135	153	6	50		
14	ZORRA	2010-07-14		2	8	3		ENVIRO							
15	FENCY	2010-07-13	9	0	3	2	123	EN TRAITEMENT	SPECT;	898	21	7	51		

Date

Case #

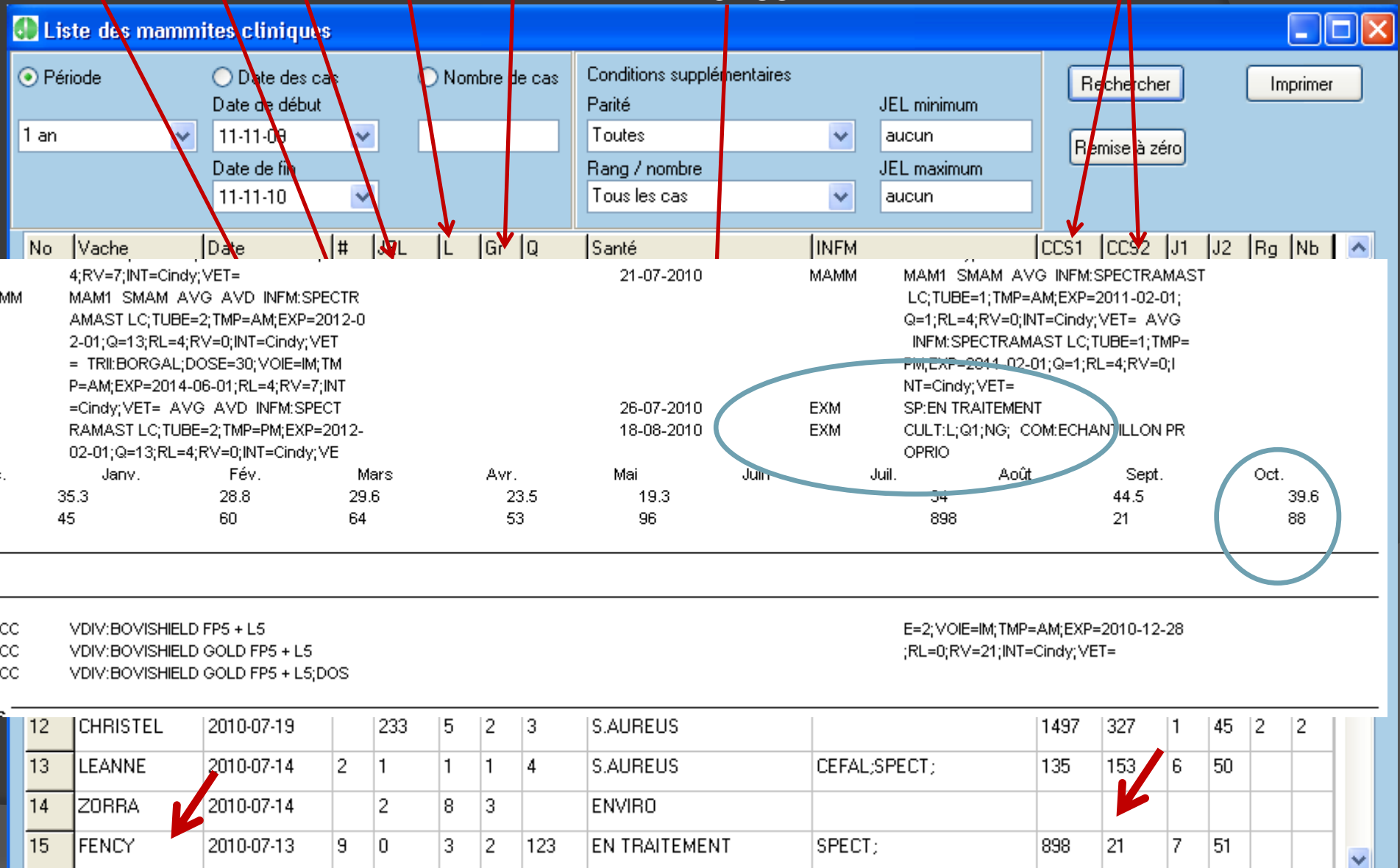
DIM

Lact #

Severity

Bact. Status of cow

SCCs at 2 tests following mastitis



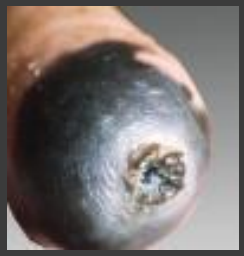
Crisis management…

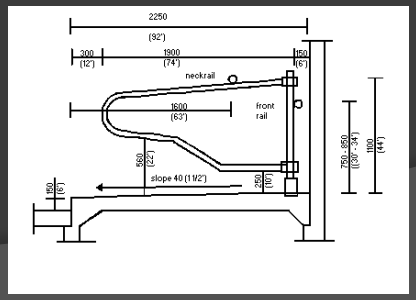
Crisis management…

- The standard routine approach almost always controls contagious mastitis satisfactorily
- Occasionally, even then, clinical case incidence will suddenly increase dramatically
- Usually it’s an « environmental crisis »

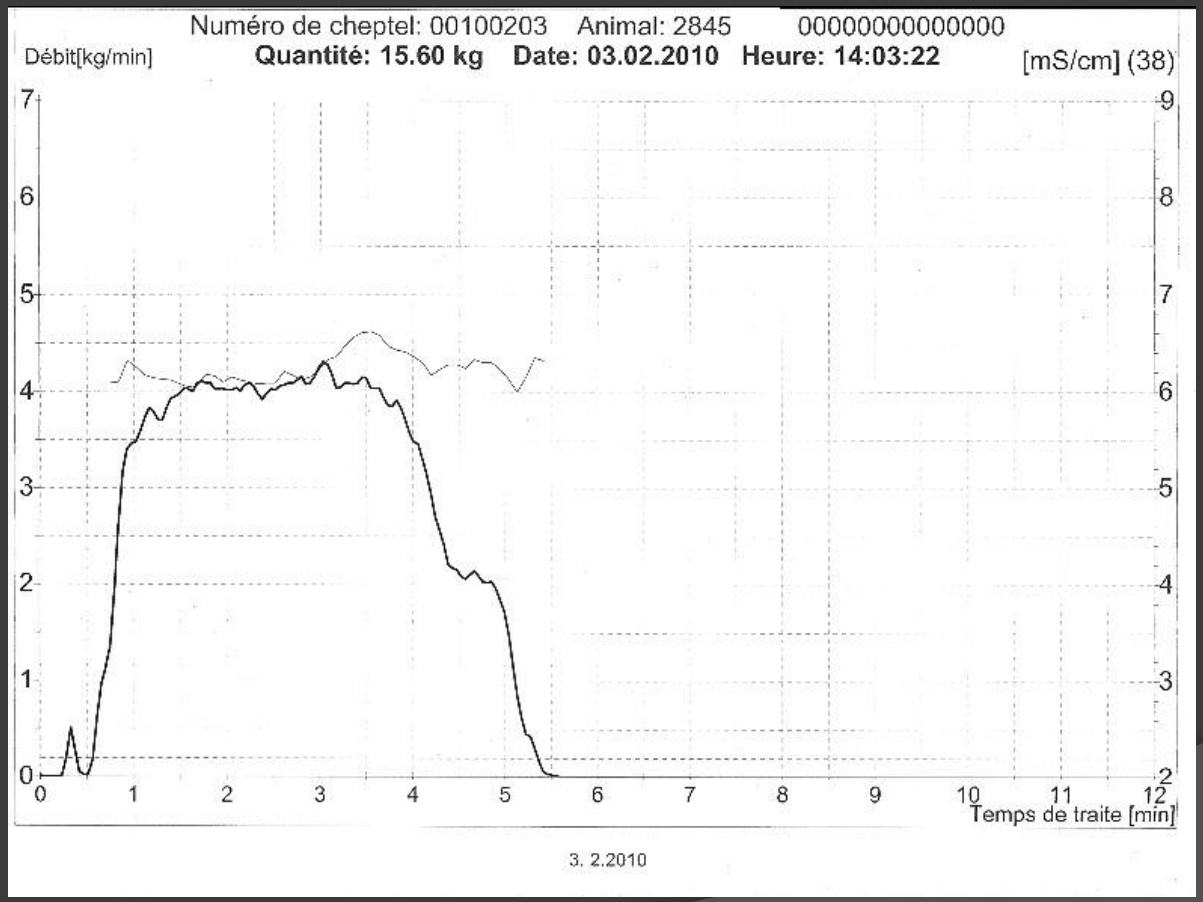
Crisis management…3 question

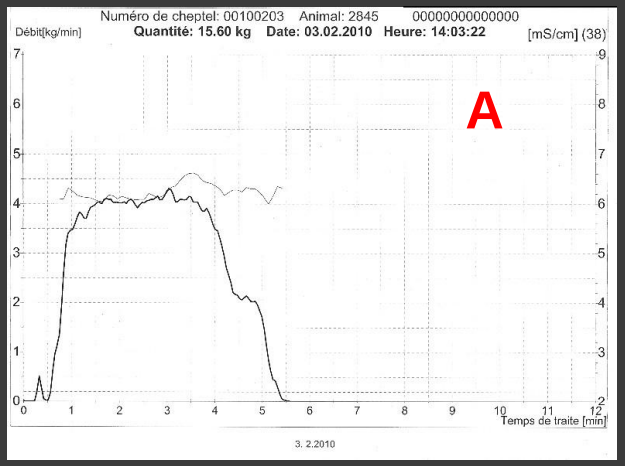
1. Hygiene: any changes ?
   - Bedding ? Comfort ? Cleaning
2. Teat end health OK ?
   - Milking system ? Teat dip ?
   - Milking routine ? Comfort ?
3. Immunity OK ?
   1. Nutrition ? Stress ?

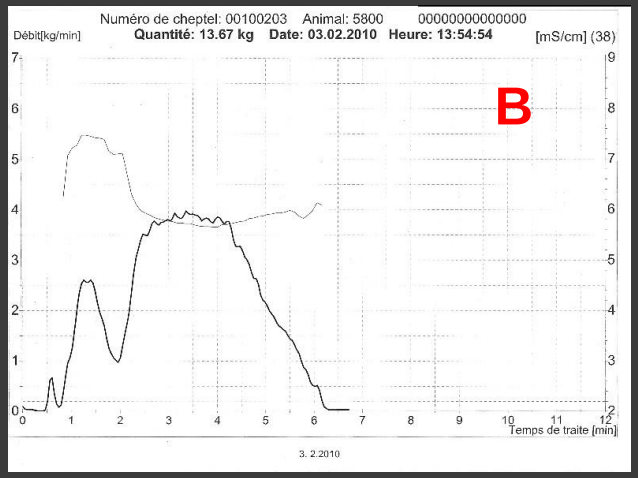


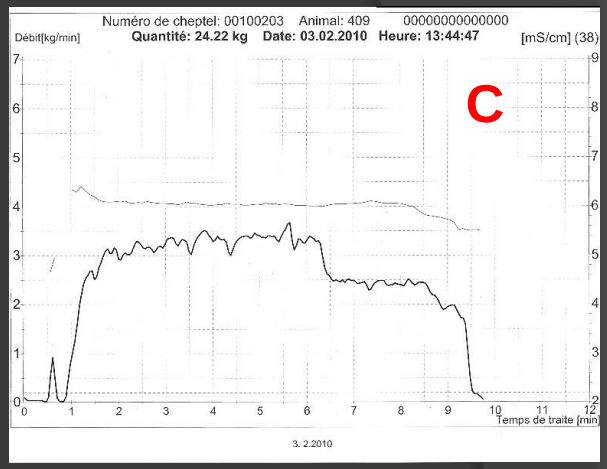


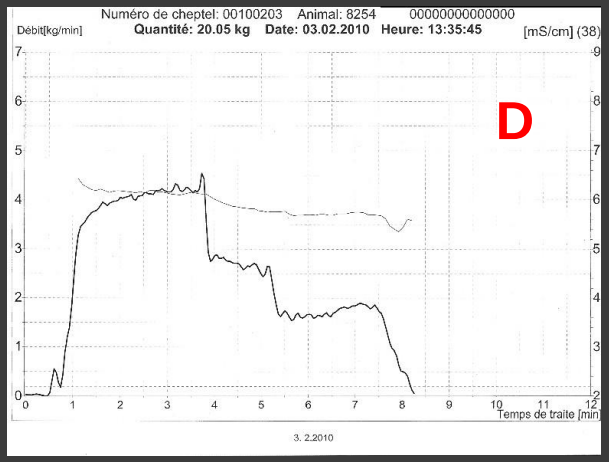
LACTOCORDER...

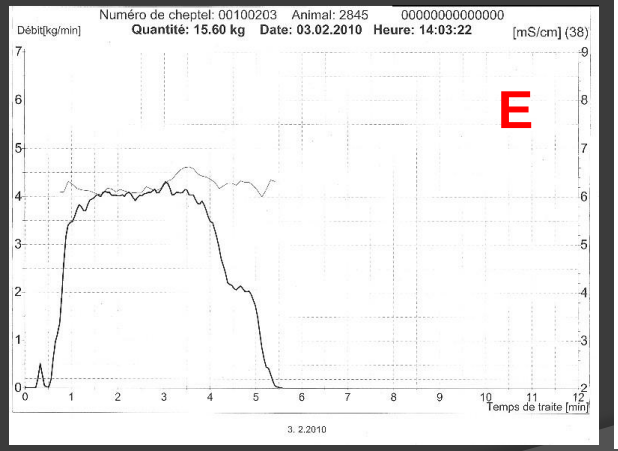


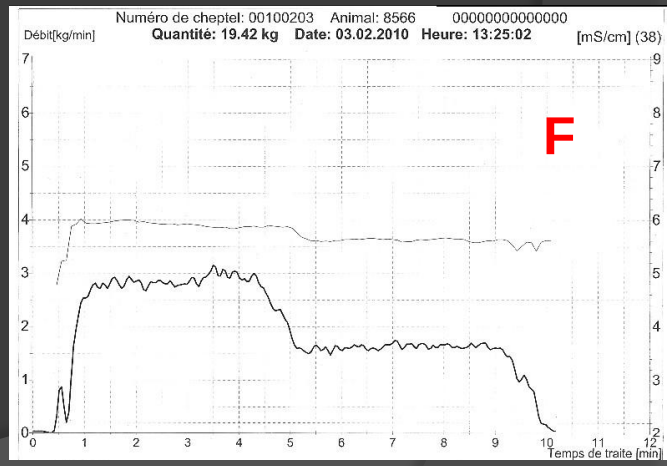

Numéro de cheptel: 00100203 Animal: 2845 00000000000000
Débit[kg/min]
Quantité: 15.60 kg Date: 03.02.2010 Heure: 14:03:22
[mS/cm] (38)
A
Temps de traite [min]
3. 2.2010


Numéro de cheptel: 00100203 Animal: 5800 00000000000000
Débit[kg/min]
Quantité: 13.67 kg Date: 03.02.2010 Heure: 13:54:54
[mS/cm] (38)
B
Temps de traite [min]
3. 2.2010


Numéro de cheptel: 00100203 Animal: 409 00000000000000
Débit[kg/min]
Quantité: 24.22 kg Date: 03.02.2010 Heure: 13:44:47
[mS/cm] (38)
C
Temps de traite [min]
3. 2.2010


Numéro de cheptel: 00100203 Animal: 8254 00000000000000
Débit[kg/min]
Quantité: 20.05 kg Date: 03.02.2010 Heure: 13:35:45
[mS/cm] (38)
D
Temps de traite [min]
3. 2.2010


Numéro de cheptel: 00100203 Animal: 2845 00000000000000
Débit[kg/min]
Quantité: 15.60 kg Date: 03.02.2010 Heure: 14:03:22
[mS/cm] (38)
E
Temps de traite [min]
3. 2.2010


Numéro de cheptel: 00100203 Animal: 8566 00000000000000
Débit[kg/min]
Quantité: 19.42 kg Date: 03.02.2010 Heure: 13:25:02
[mS/cm] (38)
F
Temps de traite [min]

Conclusion…

- Thorough udder health monitoring can be integrated easily into routine HH visits.
- A system based on health records helps.
- Occasionally crisis situations will still occur, be prepared…


MERCI...
CLINIQUE VÉTÉRINAIRE
COATICOOK