

Recording of Hoof Trimming Data in USA



Gerard Cramer DVM, DVSc.

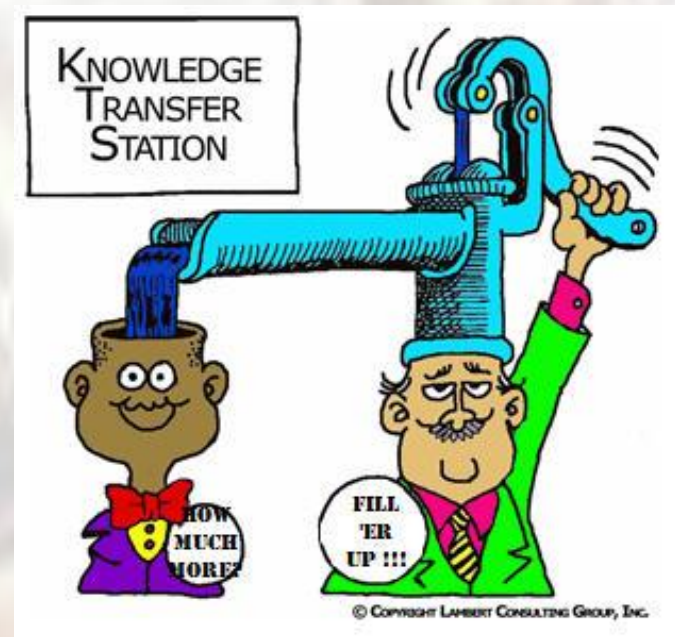
gcramer@umn.edu

[@dairycowfootdoc](#)

[@umndairyvets](#)

Outline

- Current Status
- Current Systems
- Future?



Current Status

Current Status

- No central collection of health data for genetic evaluations
 - Privacy concerns
 - Genetic evaluations were done by government entity.
 - Some data recorded in on farm systems
 - Stored for back up purposes

Current Status

- No official claw disorder key.
 - Main ones
 - Zinpro/International Lameness committee
 - ABC system
 - Inconsistent on key lesions
 - W vs A and Z vs T
 - Zones vs lesions



DAIRY CLAW LESION Identification

Non-Infectious



WHITE LINE LESION (W)
Also called White Line Separation, White Line Disease
Zones Affected: 1, 3, 4
Common signs:
• In mild cases, a void occurs in the joint line between the sole and the wall
• In severe cases, abscesses form, granuloma at the hoof wall junction (Zone 2)



SOLE ULCER (U)
Also called Pasternitis, Chronic Sole Inflammation
Zones Affected: 4
Common signs:
• New sore (dark erosion) at the coronary of sole heel junction
• Inter with of white line (dark) sole
• Ulcers occur in both outside heel (dark) sole areas



SOLE HEMORRHAGE (H)
Also called Red Heel, Chronic Sole Inflammation
Zones Affected: 4, 5
Common signs:
• Slight to significant red in the sole
• May be associated with white line separation of the sole
• May be associated with white line separation of the sole
• May be associated with white line separation of the sole



TOE ULCER (T)
Also called Toe Inflammation, Chronic Toe Inflammation
Zones Affected: 1
Common signs:
• Black, thick, blood stain under nail
• In severe cases, blood stain under nail
• Caused by infection of hoof wall
• Caused by infection of hoof wall



CORKSCREW CLAW (C)
Zones Affected: 2
Common signs:
• Spiral growth of the sole
• Spiral growth of the sole
• Spiral growth of the sole
• Spiral growth of the sole



HORIZONTAL FISSURE OR HARSHIP GROOVE (G)
Also called Horizontal Wall Fissure, Chronic Sole Inflammation
Zones Affected: 2, 3
Common signs:
• Deep wall parallel to the sole line
• Deep wall parallel to the sole line
• Deep wall parallel to the sole line
• Deep wall parallel to the sole line



VERTICAL FISSURE (V)
Also called Vertical Sole Inflammation, Chronic Sole Inflammation
Zones Affected: 3, 4
Common signs:
• Vertical crack in the sole
• Vertical crack in the sole
• Vertical crack in the sole
• Vertical crack in the sole



AXIAL FISSURE (A)
Also called Axial Sole Inflammation, Chronic Sole Inflammation
Zones Affected: 1, 2
Common signs:
• Deep groove on the sole
• Deep groove on the sole
• Deep groove on the sole
• Deep groove on the sole



INTERDIGITAL HYPERPLASIA (H)
Also called Corn, Interdigital Inflammation, Chronic Sole Inflammation
Zones Affected: 3
Common signs:
• Growth of the sole
• Growth of the sole
• Growth of the sole
• Growth of the sole



THIN SOLE (Z)
Zones Affected: 4, 5
Common signs:
• Thin sole
• Thin sole
• Thin sole
• Thin sole



DIGITAL DERMATITIS (D)
Also called Sole Burn, Chronic Sole Inflammation
Zones Affected: 3, 4
Common signs:
• Red, inflamed sole
• Red, inflamed sole
• Red, inflamed sole
• Red, inflamed sole



HEEL EROSION (E)
Zones Affected: 4
Common signs:
• Erosion of the heel
• Erosion of the heel
• Erosion of the heel
• Erosion of the heel



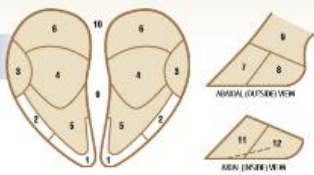
INTERDIGITAL DERMATITIS (I)
Also called Sole Burn, Chronic Sole Inflammation
Zones Affected: 3, 4
Common signs:
• Inflammation of the sole
• Inflammation of the sole
• Inflammation of the sole
• Inflammation of the sole



SOLE ROT, FOUL OR PHLEGMON (F)
Also called Sole Inflammation, Chronic Sole Inflammation
Zones Affected: 4
Common signs:
• Rot of the sole
• Rot of the sole
• Rot of the sole
• Rot of the sole



LESION ABBREVIATIONS
C = Corkscrew Claw
D = Digital Dermatitis
E = Heel Erosion
F = Foul Rot, Foul or Phlegmon
G = Horizontal Fissure or Hardship Groove
H = Interdigital Hyperplasia
I = Interdigital Dermatitis
J = Interdigital Inflammation
K = Interdigital Inflammation
L = Interdigital Inflammation
M = Interdigital Inflammation
N = Interdigital Inflammation
O = Interdigital Inflammation
P = Interdigital Inflammation
Q = Interdigital Inflammation
R = Interdigital Inflammation
S = Interdigital Inflammation
T = Toe Ulcer
U = Sole Ulcer
V = Vertical Fissure
W = White Line Lesion
X = Axial Fissure
Z = Thin Sole



PERFORMANCE MINERALS®
www.zinpro.com
852.983.4000 • 800.445.6145

Claw Zones

This poster was co-developed by Zinpro Performance Minerals and The International Livestock Commission.

BOVINE HOOF LESION IDENTIFICATION AND SEVERITY SCORE SHEET

Severity Score	A = Abscess	B = Bruise	C = Corn	D = Dermatitis / Heel wart	E = Erosion / Slurry Heel	F = Fissure	G = Digital Sepsis
	White Line Abscess	White Line Hemorrhage	Interdigital Hyperplasia	Digital Dermatitis	Heel Horn Erosion	White Line Fissure	Deep Digital Sepsis
1 = Mild							
	Small amount of pus not extending to coronary band	Localized redness in white line of outer claw	Grape size growth between claws	Small dime size moist area in interdigital cleft	Small pink marks of erosion or slurry	Small fissure in white line close to heel	Obvious signs of sepsis from a complicated sole ulcer (severe)
2 = Moderate							
	Large amount of pus, but does not emerge at coronary band	Diffuse redness in white line of one or both claws	Growth larger than a grape, but confined between claws	Strawberry granuloma larger than a dime	Single large fissure across entire heel	Wide fissure, but does not extend to coronary band	Asymmetrical swelling around coronary band (severe)
3 = Severe							
	Pus emerging at coronary band	Diffuse hemorrhage with separation	Large tumor-like corn	Verrucous tentacles growing out of granuloma	Multiple fissures extending across heel with extensive erosion	Large fissure extending to coronary band without pus	Separation around coronary band (severe)



Developed by Karl Burgi and Nigel B. Cook for use with the abc hoof lesion scoring system



BOVINE HOOF LESION IDENTIFICATION AND SEVERITY SCORE SHEET

Severity Score	H = Hemorrhage	P = Phlegmon / Foot Rot	S = Sole Fracture / Heel Ulcer	T = Toe Ulcer	U = Ulcer	V = Vertical Wall Crack	Y = Horizontal Fissure / Thimble
	Sole Hemorrhage	Interdigital Necrobacillosis	Sole Fracture	Toe Ulcer	Sole Ulcer	Vertical Fissure	Horizontal Fissure
1 = Mild							
	Superficial hemorrhage in typical site	Slight separation of interdigital skin with little swelling	Small fissure at junction of heel and sole not extending into heel	Small fissure at white line in toe area	Deep hemorrhage with exposure of corium less than dime area	Wall crack without associated pain	Small fissure on one claw
2 = Moderate							
	Deep hemorrhage in typical site	Split in interdigital skin with swelling confined between claws	Large fissure with undermined sole confined to heel area	Disintegration of sole horn in toe area extending to corium	Exposed corium more than a dime	Painful crack starting at coronary band	Small fissure on both inner and outer claw
3 = Severe							
	Diffuse extensive hemorrhage across sole	Deeply erosive lesion with swelling around the coronary band	Separation of a large area of sole	Widespread necrosis of corium in the toe extending to bone	Protrusion of corium through full thickness defect	Painful crack extending from coronary band to toe to depth of corium	Large fissure on both inner and outer claw within 1.25 inches of sole surface



Developed by Karl Burgi and Nigel B. Cook for use with the abc hoof lesion scoring system



Current Status

- Who trims feet?
 - Self employed Hoof trimmers
 - no certification or standards
 - On Farm staff
 - Larger herds



Current Systems

- Hoof Supervisor or AccuTrim analyzer
 - Difficult transfer to central database
 - 1 way data flow.

A screenshot of the Accu-trim software interface. It shows a main menu with options like "Select Dairy Trimmer", "Select Date", "Select Limb", and "Select Event". There are buttons for "Trim", "Lame", "Re-Check", "All Feet OK", "LF", "RF", "LR", and "RR". A table at the bottom displays data for various cows, including their ID, date, and status. A "Save and Exit" button is located at the bottom right of the interface.

Current Systems

- DairyComp or PCDART
 - Have ability for 2 way data transfer
 - Transfer data to central processing
 - Used to manage majority of cows

Cow 1250 A

1 2 3 4 5 6 7 8 9 10 11 12

CorTrim NrmTrim LF RF Tech Lame In Out Done

Remarks:

ENTER

EDAY 05/15/14 REM

Entering data for cow 10

Select

Select protocol

Protocol	LAME	Value
9 Trim Only	NONE	0
10 DD	TETDQ	0
11 Sole Ulcer	BLKUQ	0
12 WhiteLine	BLKUQ	0
16 Hemorrhage	TRMHQ	0
13 Foot Rot	ABXQ	0
20 REBLOCK	BLKQ	0
21 RECHECK	NONE	0
24 MEDIAL	MEDMQ	0
17 Korn	TETQ	0
18 CorkScrew	TRMQ	0
15 Thin Sole	BLKQ	0
14 NO BLOCK	TRMQ	0
23 WRAP	WRPBQ	0
25 RECHK 2WK	ZRER	0
22 Leg-AboveFoot	TRMQ	0
19 Other	BLKUQ	0

Events : 10

Date	Event	Days	Notes
1/ 8/13	LAME	TRMLH	
1/ 4/13	PREG	74 DAYS	
11/23/12	PREG	32 DAYS	
10/22/12	BRED	EMBASSY	P 4R
10/12/12	OPEN		
9/10/12	BRED	AVALON	O 4D
9/ 7/12	OK		
8/31/12	OTHER	CIDR	
8/10/12	MOVE	FOOT005	
7/ 1/12	FRESH		

Current Systems

- Paper
 - Likely most common
 - Various level of detail
 - Leg
 - Accounting

University of Guelph Lameness Monitoring Form

Hoof Trimmer info	Date:
	Farm Name:
	Phone #
	Page #

LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH
LF	RF	LF	RF	LF	RF
LH	RH	LH	RH	LH	RH

Diagnoses: Circle Treated Lesions

A- WLD- white line abscess	F- Foot rot	T- Thin Soles
C- Deep Sepsis in claw	H- Hemorrhage (bruising)	U- Ulcer (Sole, Toe and Heel)
D- Digital dermatitis	K- Interdigital hyperplasia (corn)	V- Vertical wall crack
E- Heel horn erosion	S- WLD- White line separations	N- Non-foot (upper leg lameness)
		X- Cow is lame

Treatment: b- block w- wrap/ bandage

Future

- Council on Dairy Cattle Breeding
 - Taking over genetic evaluations
 - Non profit Private entity
 - Less privacy concerns?
 - Producer push for more health traits

Future

- System that meet needs of:
 - Cow level
 - HT/Farm
 - Herd Level
 - HT/Farm/Advisors
 - Industry
 - Genetic industry/Research

Questions?



- Thanks for providing information

