



農場導入五大 動線機器人研討會 和永昌實業股份有限公司

日期：2016年4月27日

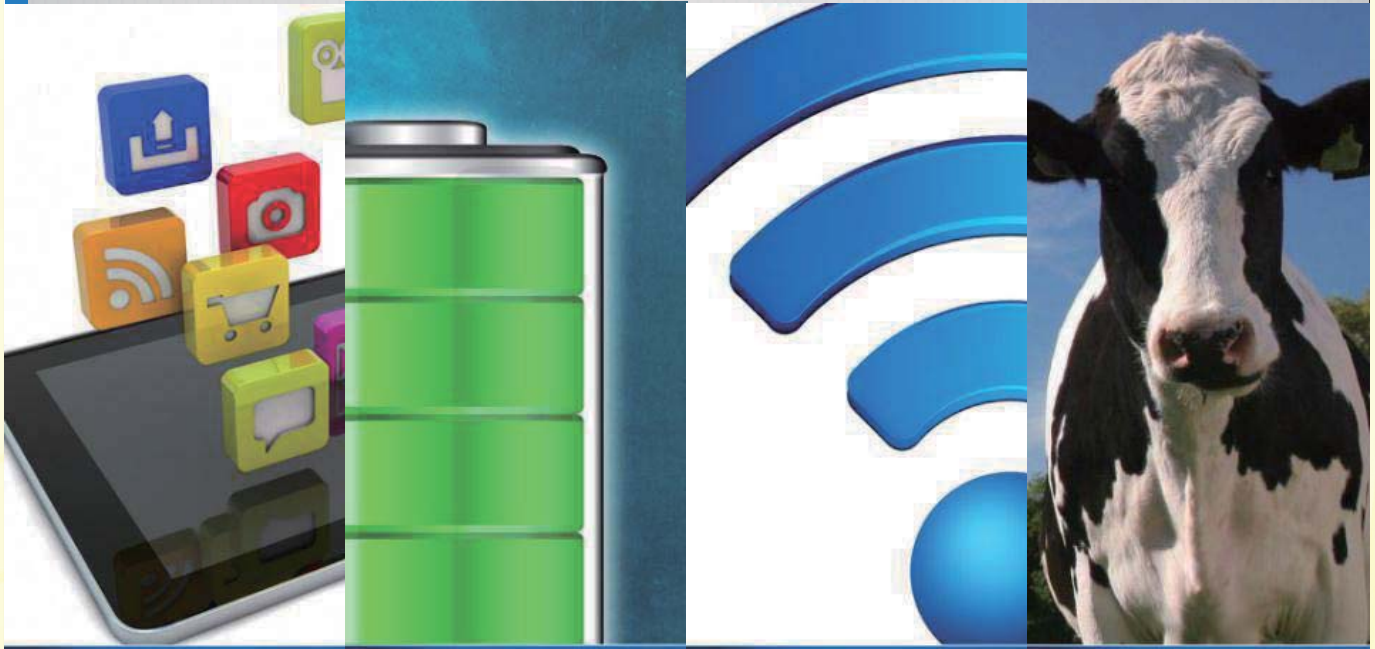
MooMonitor + 乳牛發情與健康監控系統



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MooMonitor +



介面操作簡易的
網頁與APP設計

電池壽命大幅增加

收訊範圍更廣

提供更多元的牛
隻資料



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3

再也不用被電腦綁定 (無上限的儲存空間)



紀錄牛隻活動

活動數據經計算
處理成可用資料

加密的資料

隨處皆可提取資
料



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4

乳牛的一天

休息&反芻

進食、飲水、反芻、運動、社交

12 小時/日



10 小時/日



榨乳

2 小時/日

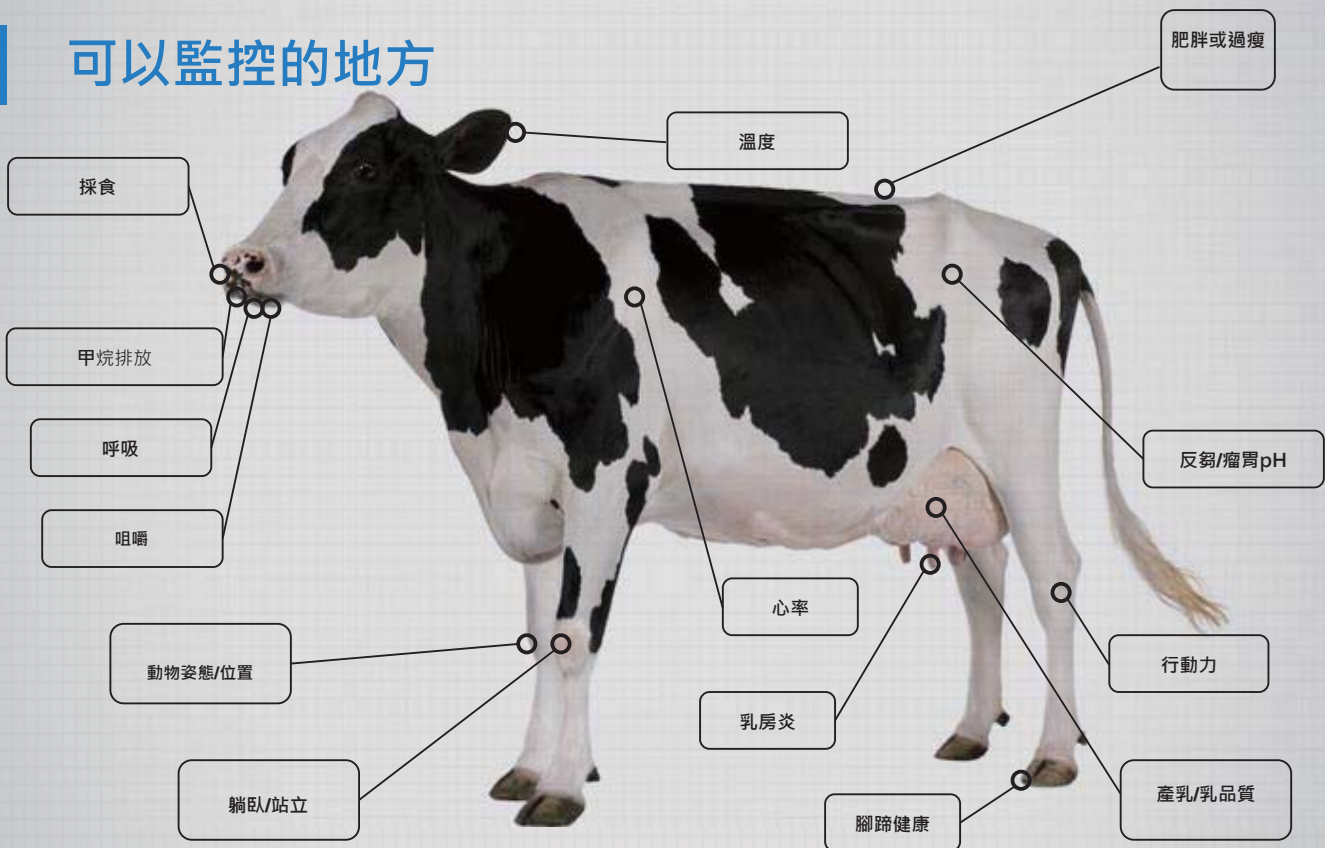


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5

可以監控的地方



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體溫 vs 反芻/休息

健康狀況	體內溫度變化	體表溫度變化	反芻	休息
臨床性乳熱病	--	--	--	++
亞臨床性乳熱病	Na	Na	--	++
酮症	Na	Na	--	++
臨床性乳房炎	+	+/-	--	++
臨床性子宮炎	+	+/-	--	++
跛足	+/-	Na	-	++
下痢	+/-	+/-	--	++
SARA (亞急性瘤胃酸中毒)	Na	Na	--	+
分娩	+/-	+/-	--	--
第四胃異位	Na	Na	--	+
體溫高	++	Na	---	--



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監測項目



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反芻



- 直接告訴我們牛隻感受
- 健康與福利狀態的指標
- 提早發現病徵，加強治療效果
- 減少支持性療法的抗生素使用
- 減低賣牛，淘汰與死亡牛



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採食



- 採食量直接影響產乳量
- 監控採食行為
- 進而推算乾物質採食量
- 每日採食時間長短



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休息



- 圈養牛隻的舒適度很重要
- 休息時間告訴我們牛隻的感受
- 足夠的躺臥時間是牛隻滿意與健康的指標，但過度的躺臥則是疾病的徵兆
- 足夠的休息能減少跛足，促進泌乳量



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監控健康狀況

例子:

- ✓ 沙門氏桿菌
- ✓ 乳房炎
- ✓ 喉嚨痛
- ✓ 跛足
- ✓ 囊腫



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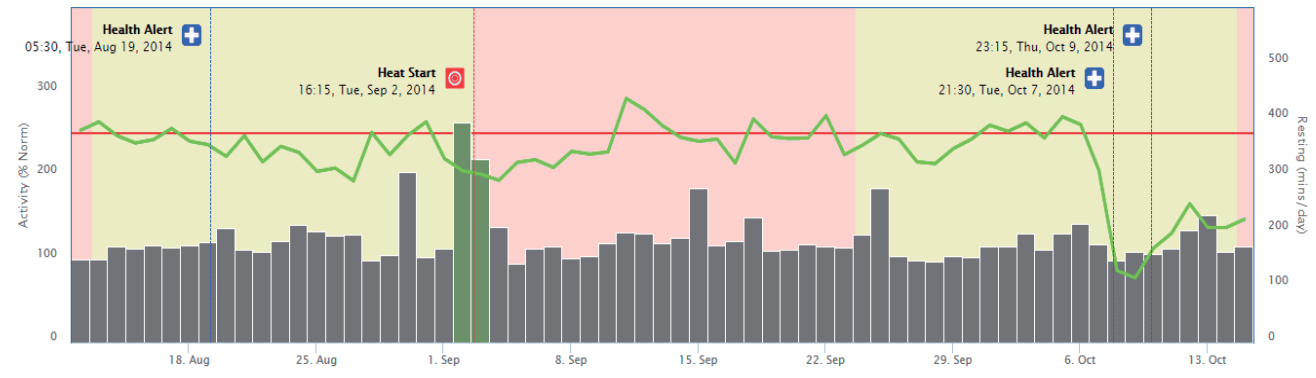
行為警報 1

Activity & Rumination Behaviours Activity Intensity

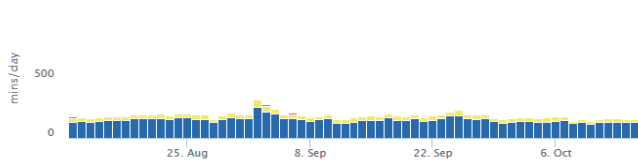
Previous Next Cow Actions

Rumination Activity

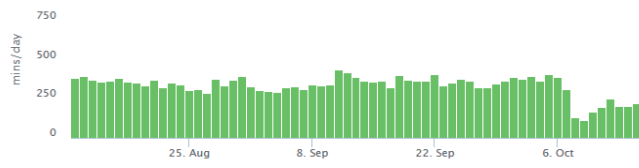
Relative Activity & Rumination



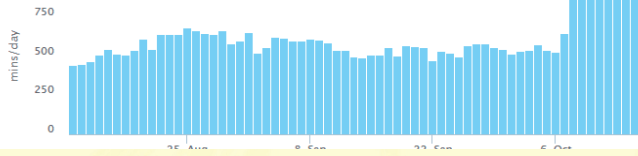
Activity Intensity



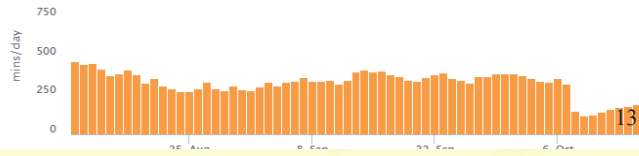
Rumination



Resting



Feeding



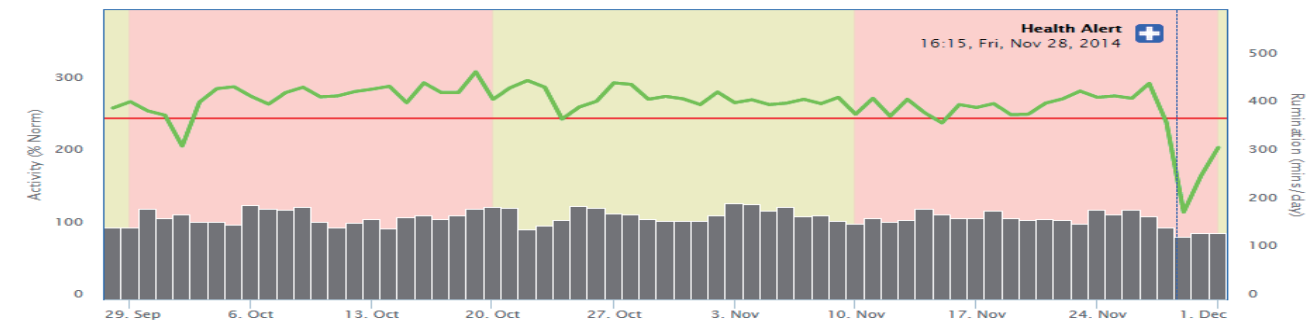
行為警報 2

Activity & Rumination Behaviours Activity Intensity

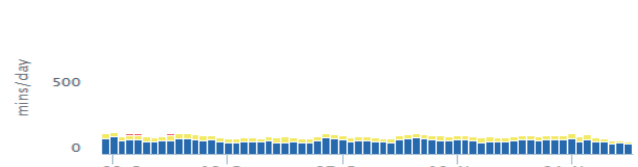
Previous Next Cow Actions

Rumination Activity

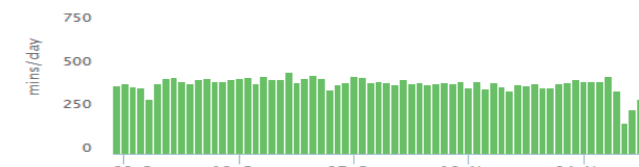
Relative Activity & Rumination



Activity Intensity



Rumination



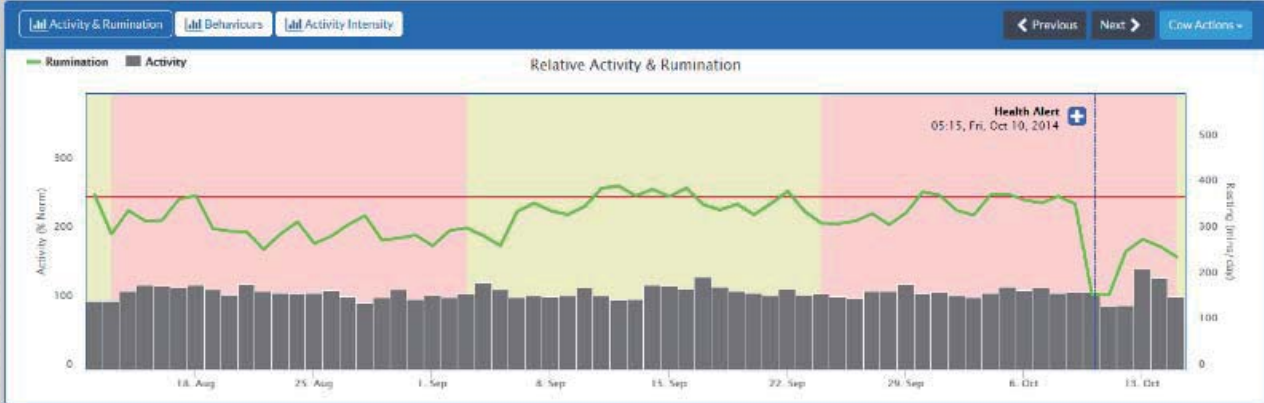
Resting



Feeding

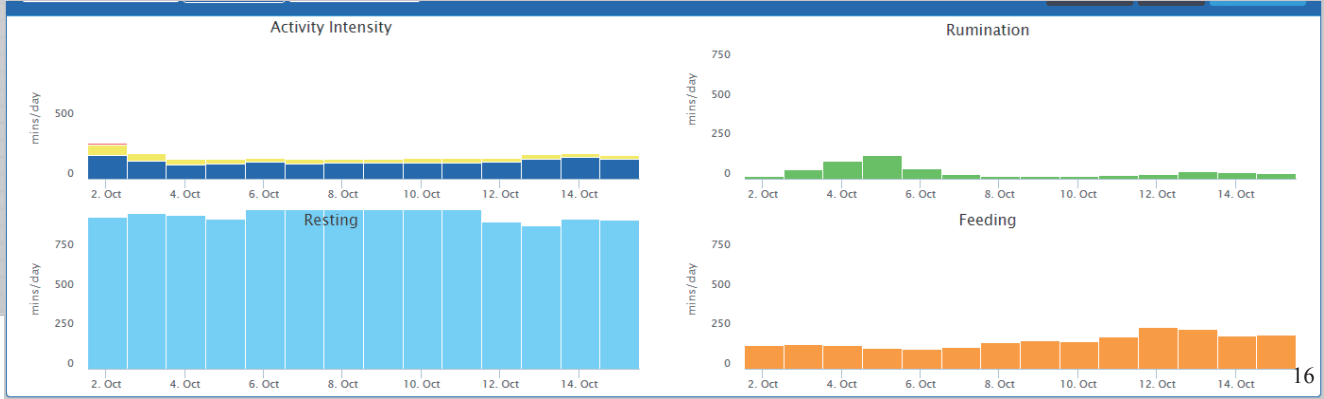
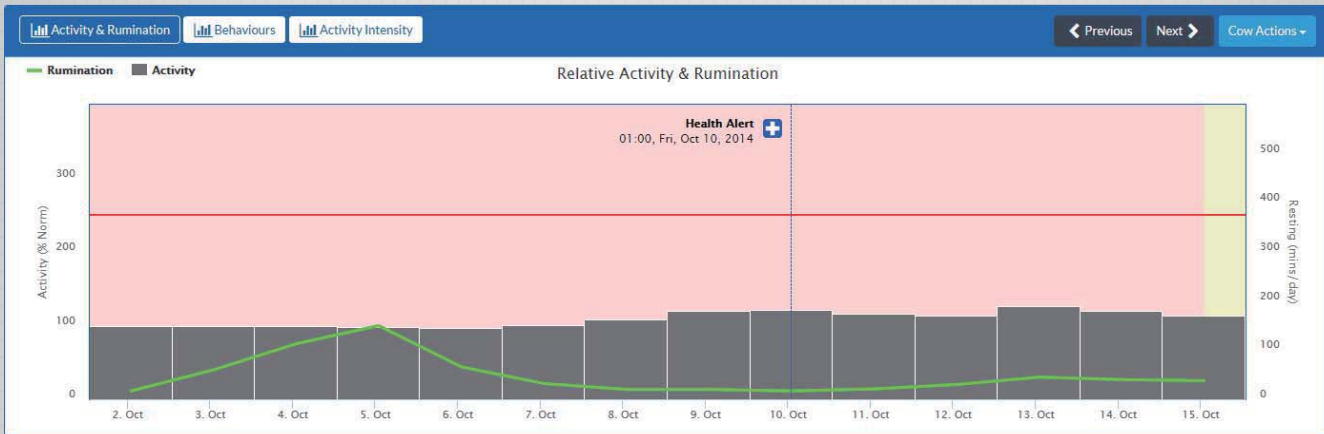


行為警報3



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行為警報4



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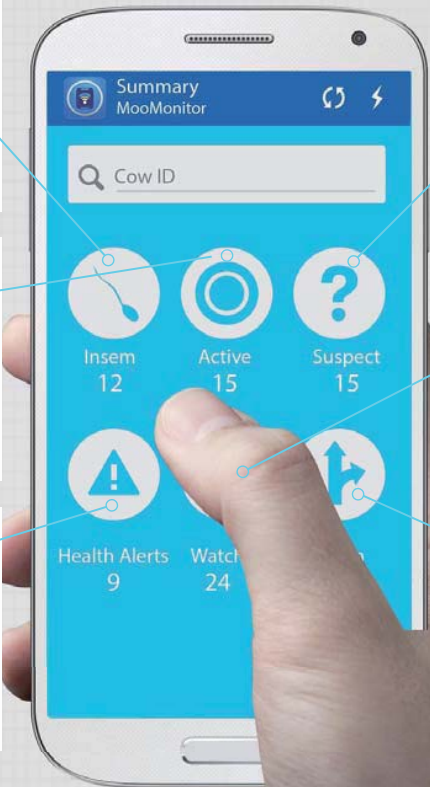
一手掌握牛群狀況...



Insem
Cows ready to be inseminated

Active
Cows detected as being in heat

Health Alerts
Cows showing abnormal behaviour



Suspect
Cows with higher than normal activity that may be in heat

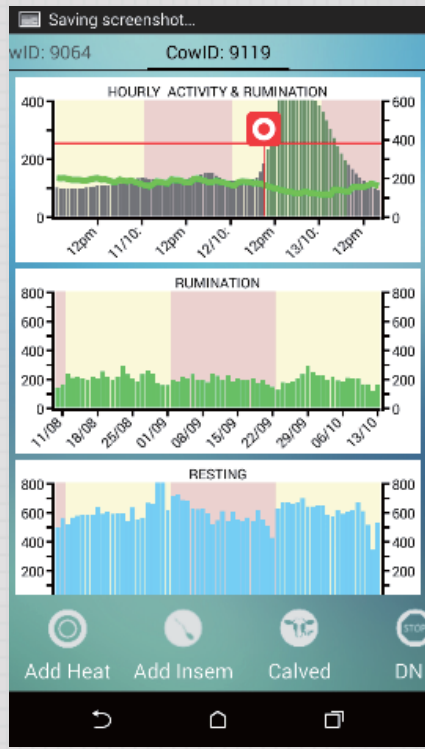
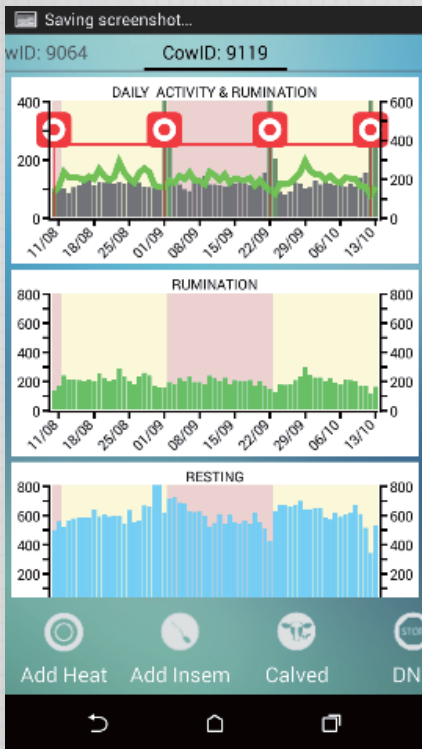
Watch
Add cows to the watch list for quick access to their data

Draft
Cows scheduled to be drafted



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發情牛 - 9119



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MOOMONITOR+ 獲獎榮譽



Ploughing innovation in Animal Health Award



World Dairy Expo Dairy Herd Management Innovation Award



Alföldi Állattenyésztési Napok 2015



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