

New chute-side test can improve research studies

Test provides accurate bovine blood leukocyte differential in seconds

Reduce risk in research studies and improve outcomes with a new chute-side test that provides more data with less hassle. The QScout[®] BLD test quickly and accurately provides a blood leukocyte differential, objective diagnostic information that can be used to help researchers distinguish themselves from others. This tool is currently being used to measure and predict Bovine Respiratory Disease (BRD) risk on arrival in commercial cattle operations. The QScout BLD test is run on the QScout[®] Cattle Lab, a tough, rugged instrument, designed to operate in dirty environments and harsh temperatures.

The QScout Cattle Lab brings accurate diagnostics to researchers. The portable diagnostic analyzer scans QScout BLD tests, providing detailed results in seconds per animal.



The easy-to-use chute-side test can help researchers ensure:

- **Better randomization between groups** - Use blood leukocyte differential results to balance study groups by health status, reducing the risk of health variables becoming a confounder of study outcomes.
- **More data** - Add value to trials by measuring changes in immune cell concentrations as a response to study treatments.
- **Earlier identification of changes** - As first-responders of the immune system, white blood cells provide an early indication of stress, disease, or a response to therapy.
- **Speed** - The QScout Cattle Lab performs a white blood cell differential in 35 seconds. Get the accuracy and precision of hematology without waiting hours or days for lab results.
- **Simplicity** - Results are available on the QScout Cattle Lab at completion of each test and transmit immediately to QStats[™] online portal.
- **Economy** - Cost of the QScout Cattle Lab and QScout BLD tests are significantly less than lab hematology analyzers. Conducting the test and operating the machine requires minimal training and no laboratory skills are required, reducing labor costs.

Accurate results in a few simple steps

To conduct a rapid QScout BLD test, a small blood sample is collected from the calf's jugular vein during processing using the QDraw[™] collection device. The blood sample is transferred to a QScout BLD test and then inserted into the QScout Cattle Lab located near the chute. In 35 seconds, the QScout Cattle Lab delivers the calf's blood leukocyte differential, providing total leukocyte count as well as concentrations and percentages of neutrophils, lymphocytes, and eosinophils. Following completion of each test, results are automatically transmitted to QStats.

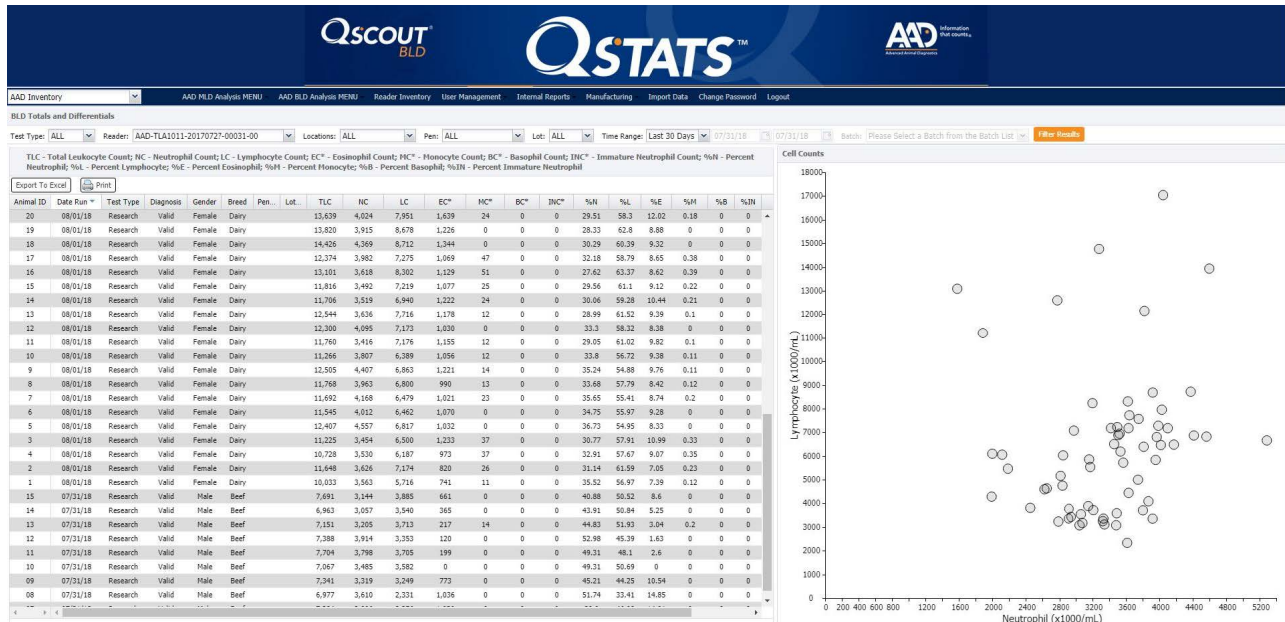


About Advanced Animal Diagnostics

Advanced Animal Diagnostics provides livestock producers with diagnostic products that improve profitability and empower more precise care of animals, so they live healthier, more productive lives. AAD is committed to researching, developing and commercializing the industry's most reliable diagnostic tests, such as QScout BLD, along with helping livestock producers use antibiotics more efficiently. With our diagnostic offerings, we aim to empower real-time management decisions that increase productivity, prevent losses, improve animal welfare and protect our food supply.

Access data remotely with QStats™

View, benchmark and track data with QStats™, an online portal connected to the QScout® Cattle Lab. With each QScout® BLD test run, real-time results seamlessly transfer to a password protected QStats account. Customized reports can be easily downloaded to Microsoft® Excel® or printed. Multiple usernames can be assigned, making QStats ideal for sharing data with multiple collaborators.



Accuracy

Table 1. Accuracy data for the QScout Cattle Lab

Parameter	R
Total Leukocyte Count	R ≥ 0.95
Neutrophil Count	R ≥ 0.95
Mononuclear Count	R ≥ 0.90
Eosinophil Count	R ≥ 0.95
Percent Neutrophil	R ≥ 0.91
Percent Mononuclear	R ≥ 0.91
Percent Eosinophil	R ≥ 0.94

Accuracy data were generated from 1,750 chute-side samples on 5 instruments over 7 days at 3 locations and compared to 2 IDEXX ProCyte Dx® Hematology Analyzers with Research Applications software. Samples were screened for cell misclassification using ProCyte software flags.

Precision

Precision data were generated by a trained professional running 1 instrument.

Table 2. Precision data for the QScout Cattle Lab

Parameter	Low WBC Sample (n=20)		High WBC Sample (n=20)	
	Mean (cells/μL)	CV (%)	Mean (cells/μL)	CV (%)
Total Leukocyte Count	6,661	< 6.5	11,959	< 6.4
Neutrophil Count	2,844	< 8.2	5,248	< 7.8
Mononuclear Count	3,437	< 8.8	5,921	< 9.5
Eosinophil Count	379	< 15.7	790	< 16.5