



New Products

Further Enhancing the Woodley Veterinary Diagnostics product range

- Mythic 18 vet haematology analyser
- Poison test station
- Multichrome veterinary microbiology culture system
- Urea test strips



The Mythic 18 Vet

The Ultimate Technology in Haematology



fully automated
18 parameter
veterinary
haematology
analyser



Swiss Made

The Mythic 18 Vet Haematology Analyser

Key Features:

- Fully automated
- Quick and easy to use
- Low reagent consumption
- Easy to maintain
- Less servicing required
- Compact
- Light weight
- Low power consumption
- Low cost reagents packs
- On-board reagent pack
- Touch screen
- 60 samples per hour
- Low blood sample volume 10 μ l
- Stores 1500 patient results
- Measurement Principle:
 - WBC/RBC/PLT :
Impedance technology
 - Haemoglobin:
Spectrophotometry at 555 nm
 - Haematocrit:
Volume integration
- Swiss made

The Mythic 18 Vet

Parameters	18 parameters + 3 curves: WBC, LYM% and #, MON% and #, GRA% and #, EOS flag RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT, PDW RBC curve, WBC curve, PLT curve
Throughput	60 samples per hour
Sample Volume	< 10 µl
Output	RS232, Ethernet (UDP/IP, TCP/IP protocol) 2 USB ports Centronics port Barcode scanner port
Reagents	Cyanide free (up to 200 tests per pack*)
Printers	External printer Dot matrix printer / thermal printer / monochrome inkjet printer / monochrome laser printer
Power (voltage & consumption)	90 to 250 V 50 to 60 Hz Less 50 VA
Graphic interface	Menu with icons for direct access to main species
Technology	Impedance (WBC, RBC, PLT) Spectrophotometry (HGB)
Users Interface	TFT colour touch screen Built-in numerical keyboard



* Depends on species analysed

10 species available	Dog, Cat, Horse, Cattle, Pig, Sheep, Goat, Rabbit, Mouse, Rat. 10 other species can be programmed by the user
Calibration	Automatic or manual
Flags	<ul style="list-style-type: none"> · Pathological flags (programmable) · Lab limits (programmable) · Reagent alert · Instrument alerts
Quality Control	Liquid QC material available Table and Levey Jennings graphs
Memory	1500 patient internal memory Mass storage USB up to 60,000 patients
Multilanguage	French, English, Spanish, Portuguese, Italian, German, Cyrillic, Chinese
Traceability	<ul style="list-style-type: none"> · Patient identification; Name, Patient Id, Sample Id · Daily log · Reagent monitoring: lot number, expiry date, volume · Service log

The Mythic 18 Vet

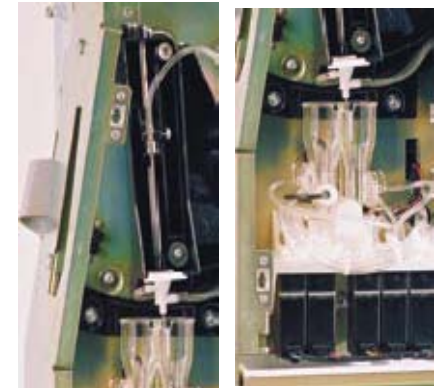
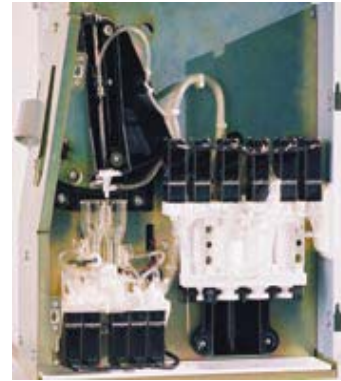
Reagents ~ HMVET 10 ~ M-Pack for Mythic 18 Vet

Options ~ External barcode scanner

The Mythic 18 Vet

Easy to Use

Easy to Service



QVGA Touch Screen
Position identical to
print out for easy
reading.

***Built-in Reagent
Tray.***
Bench space
saving
and easy to
replace.

***Only 3 Hydraulic
Modules.***
Cost saving &
easy to replace.

***Needle and chambers
dismountable without
tools.***
Simple and easy
maintenance.

ZURICH VETERINARY UNIVERSITY EVALUATION

MATERIAL AND METHODS

1. ACCURACY

- Reference methods

 Sysmex XT 2000 iV: WBC, RBC, PLT, Indices

 Manual HCT

 WBC differential by microscopy (blood smear) resp.

 electronical differentiation of the Sysmex XT 2000 iV

- EDTA-blood: 122 Dogs, 129 Cats, 123 Horses

2. PRECISION

- Within-run
- Day-to-day

3. LINEARITY

4. CARRY-OVER

5. CELL AGING

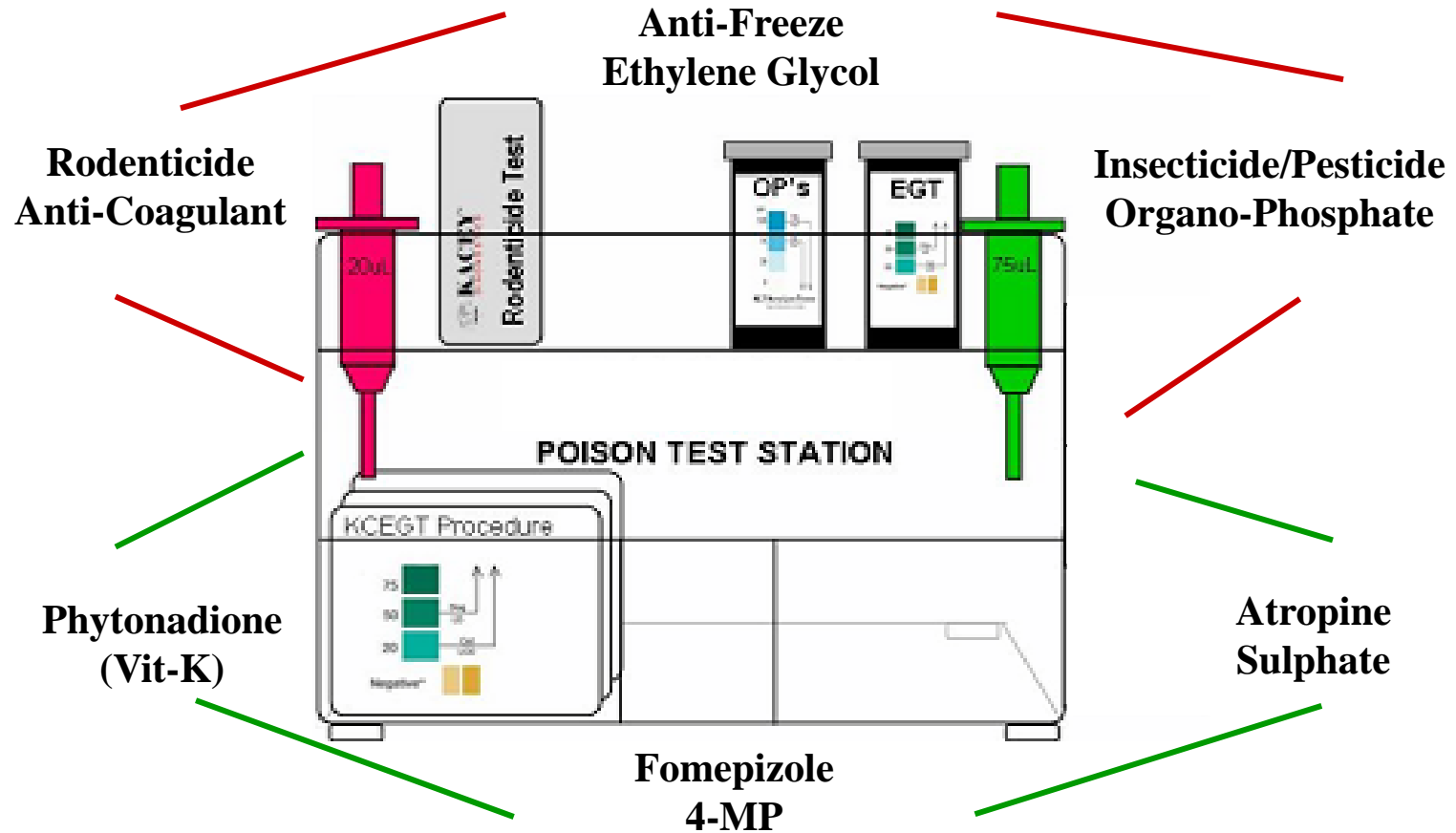
ACCURACY

Parameter	Species	Coefficient of correlation	Intercept (Confidence interval)	Slope (Confidence interval)	Bias (95% Limits of agreement)
WBC	Cat	0.94	0.26 (-0.14 to 0.61)	0.91 (0.88 to 0.95)	-0.074 (-6.959 to 6.815)
	Dog	0.99	0.98 (0.68 to 1.36)	0.95 (0.92 to 0.98)	0.229 (-3.651 to 4.110)
	Horse	0.98	0.38 (0.17 to 0.56)	0.94 (0.92 to 0.97)	-0.126 (-1.496 to 1.243)
RBC	Cat	0.99	0.51 (0.37 to 0.66)	0.95 (0.93 to 0.97)	0.09 (0.400 to 0.581)
	Dog	0.99	0.26 (0.15 to 0.4)	1.0 (0.98 to 1.02)	0.241 (-0.096 to 0.578)
	Horse	0.98	0.38 (0.21 to 0.57)	0.93 (0.91 to 0.96)	-0.14 (-0.693 to 0.414)
HGB	Cat	0.99	0.38 (0.21 to 0.54)	0.92 (0.9 to 0.93)	-0.511 (-1.256 to 0.234)
	Dog	1	1.02 (0.81 to 1.26)	0.93 (0.92 to 0.95)	0.1 (-0.57 to 0.76)
	Horse	0.98	0.48 (0.08 to 0.76)	0.94 (0.92 to 0.98)	-0.25 (-1.09 to 0.58)

ACCURACY

Parameter	Species	Coefficient of correlation	Intercept (Confidence interval)	Slope (Confidence interval)	Bias (95% Limits of agreement)
HCT	Cat	0.99	2.05 (1.23 to 2.74)	0.94 (0.92 to 0.97)	0.16 (-2.15 to 2.48)
	Dog	0.99	1.2 (0.05 to 2.13)	0.95 (0.93 to 0.98)	-0.79 (-3.42 to 1.83)
	Horse	0.99	1.36 (0.43 to 2.13)	0.96 (0.93 to 0.98)	-0.17 (-1.95 to 1.61)
MCV	Cat	0.95	4.65 (2.5 to 7.12)	0.91 (0.85 to 0.96)	0.86 (-2.62 to 4.33)
	Dog	0.96	8.01 (4.54 to 11.37)	0.83 (0.78 to 0.88)	-3.16 (-6.03 to -0.28)
	Horse	0.94	3.62 (1.08 to 5.82)	0.9 (0.85 to 0.95)	-1.02 (-3.68 to 1.63)
PLT	Cat	0.8	-9.47 (-52.65 to 23.06)	0.88 (0.74 to 1.05)	-38.3 (-225.5 to 149)
	Dog	0.97	-8.06 (-27 to 7.22)	1.15 (1.1 to 1.22)	42.5 (-73.9 to 158.8)
	Horse	0.84	-18.08 (-37.57 to 4.82)	1.04 (0.93 to 1.16)	1.3 (-82.3 to 84.9)

Poison Test Station

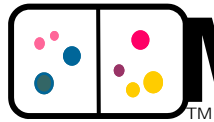


**The Poison Control Station...
quick, accurate results in-practice**

Poison Test Station

COMPLETE “IN HOUSE” TESTING AND EMERGENCY TREATMENT OF THREE COMMON POISONS

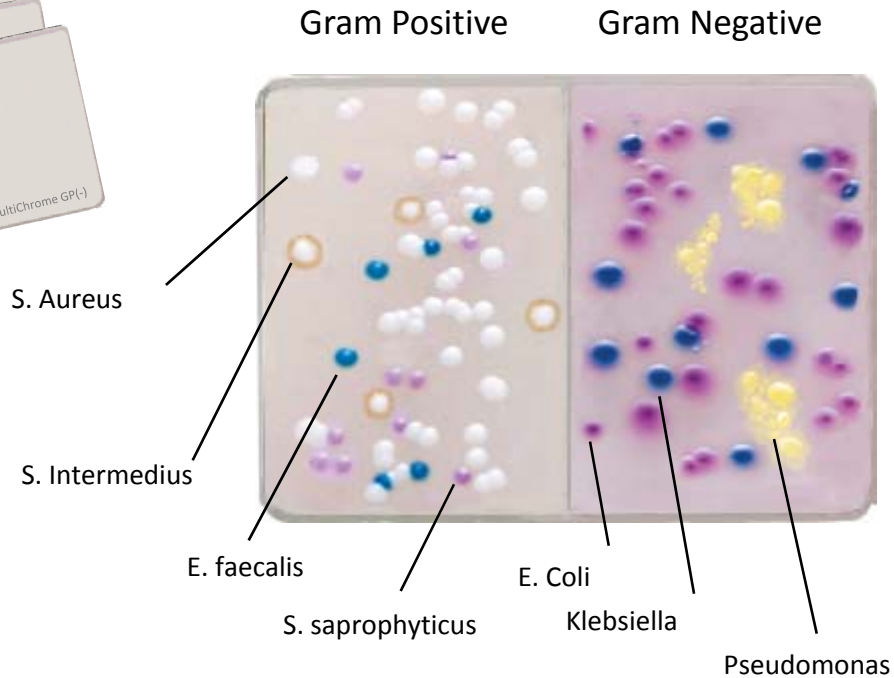
Rodenticide Anti-Coagulant Test	Anti-Freeze Ethylene Glycol	Insecticide / Pesticide Organo-Phosphate
10 minute Go/No Go result	Feline sensitivity @ 20mg/dl	Feline sensitivity 75 U/dl
75 µl sample without the need for a separate instrument	Canine sensitivity @ 50mg/dl	Canine sensitivity 125 U/dl
Results in nanograms	Only 20ul of plasma needed	Only 20ul of plasma needed
Identification for presence of an anti coagulant or derivative	Detects 30 min after ingestion	Results in 5 minutes
Screens for Super Rodenticides	Results in 10 minutes	Easy colour comparison chart
12 -15 month expiration	Two colour comparison chart	Low unit cost per strip
	12-15 month expiration	15 months expiration



MultiChrome

TM

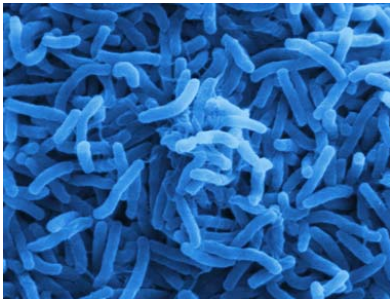
Veterinary Microbiology Culture System



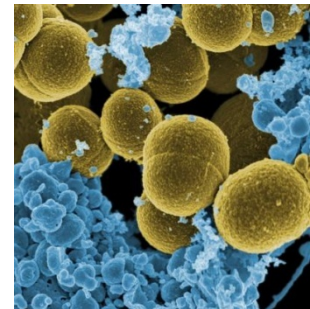
BACTERIA AS A PATHOGEN

Bacteria are unicellular organisms that reproduce by cell division; usually have cell walls; can be shaped like spheres, rods or spirals; and can be found in virtually any environment.

Although many are synergistic in organisms, they can also cause disease. In veterinary medicine we routinely see them affecting nine areas:

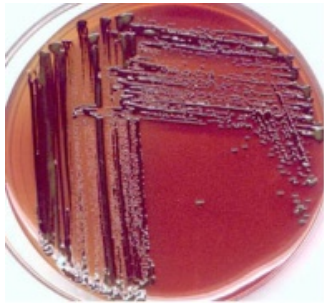


- **Outer Ear Infections**
- **Urinary Tract Infections**
- Conjunctival infections
- Genital infections
- Wound/abscess
- Skin Infections
- Upper Respiratory Infections
- Mastitis
- Septicemia



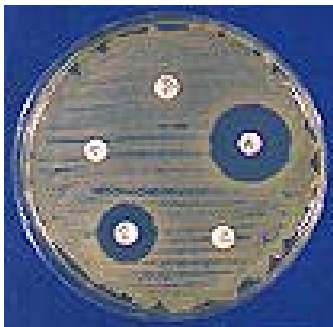
CURRENT METHODS OF DETECTION AND IDENTIFICATION

There are generally two steps involved in the detection, identification and treatment of bacterial pathogens



➤ Culture

Growing suspected bacterial agents in a nutrient media (agar) within a controlled environment (incubator)



➤ Sensitivity

Subjecting bacterial agents to various common veterinary antibiotics to determine efficacy

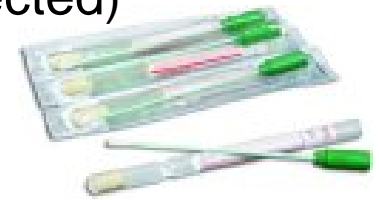
CURRENT METHODS OF DETECTION AND IDENTIFICATION (continued)

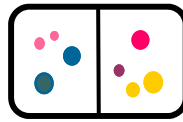
Most veterinary clinics and hospitals for lack of a comprehensive, easy to use in-house method opt for using a reference laboratory
This involves:

- Collecting a sample from the affected area
- Sending it to a reference laboratory
- Treat suspected bacteria with antibiotic
- Receiving the culture and/or sensitivity results in 2-3 days
- Recheck in 10 days to adjust antibiotic if necessary



This comes at a great cost per test to both the veterinarian and the client with **no** guarantee the sample will not be deemed unusable
(Note: Up to 30% of all UTI samples sent to labs are rejected)





MultiChrome™

Veterinary Microbiology Culture System



MultiChrome is cutting edge technology for Veterinary microbiology. At the center of this system is a unique Chromogenic culture bi-plate that:



➤ Isolates Gram Positive from Gram Negative bacteria

Differentiation of bacteria into two families based on their ability to accept or reject a chromogen indicator.

Gram Positive

- *E. faecalis* (Bone)
- *S. intermedius* (Ear)
- *S. aureus* (Skin)
- *S. uberis* (Mastitis)

(+)

(-)

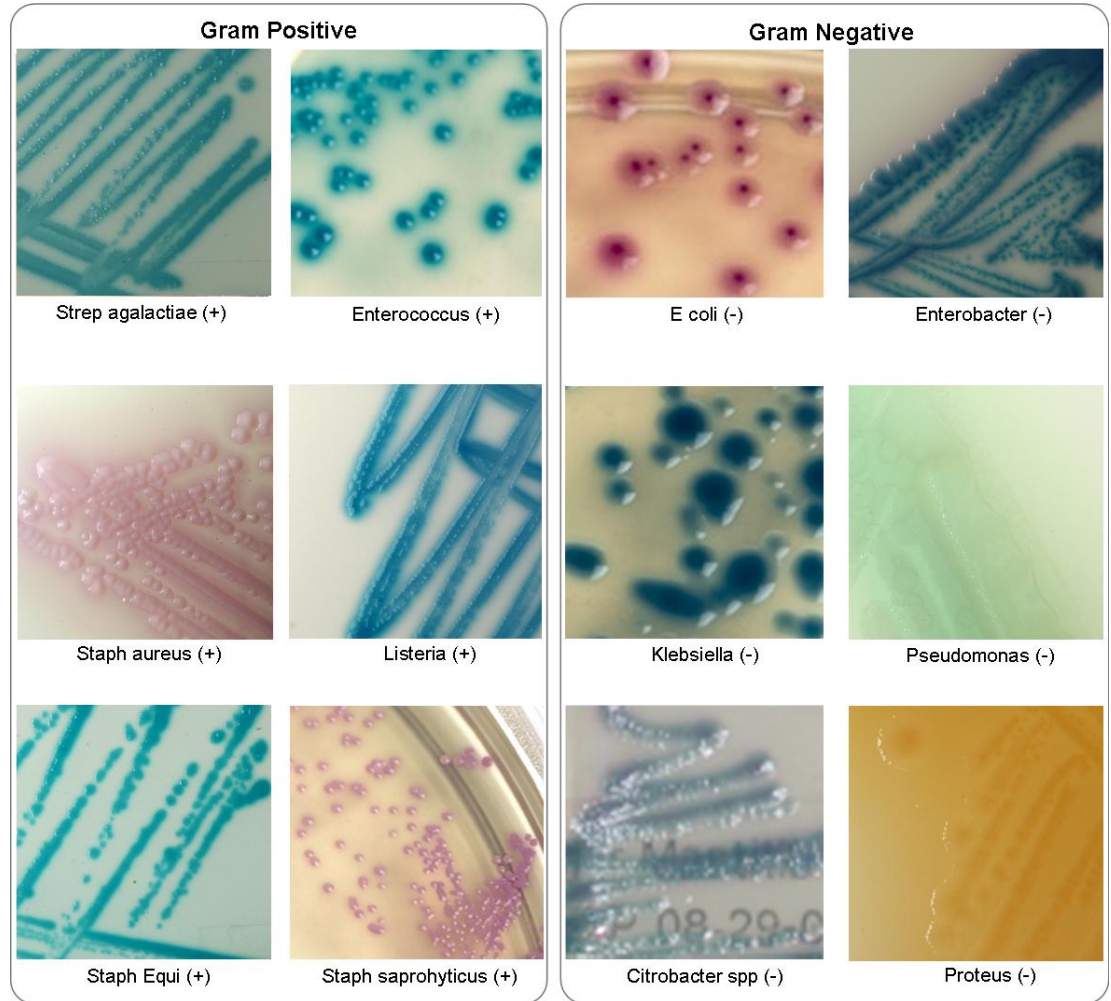


Gram Negative

- *Proteus* (UTI)
- *Pseudomonas* (Ear)
- *Klebsiella* (UTI)
- *E. Coli* (UTI 90%)

➤ Is designed to ignite, individual, distinct color within bacteria

Causes a reaction within the bacteria resulting in distinct colors such as in E. Coli appearing as a **rose coloured colony with a darker center** or Strep Agalactiae appearing **teal to turquoise blue**, etc.





MultiChromeTM

TM

Veterinary Microbiology Culture System

- **Produces in-house confirmatory results in 24 hours**
No waiting for lab results that can take up to 3 days and STILL be deemed inconclusive or unusable.



Why wait for results?

“MultiChrome™ Microbiology System In-House Culture Procedure

Materials needed:

- 1) A sterile swab or inoculating loop (10ul recommended)
- 2) One MultiChrome plate brought to room temperature (stored in fridge)
- 3) Existing incubator or the **NEW MultiChrome™ Micro Incubator**

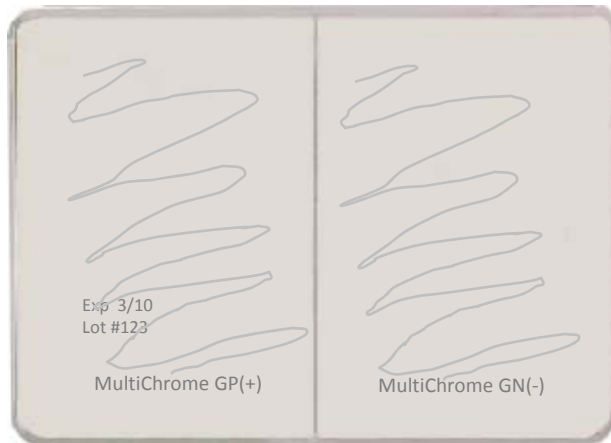


“MultiChrome™ Microbiology System

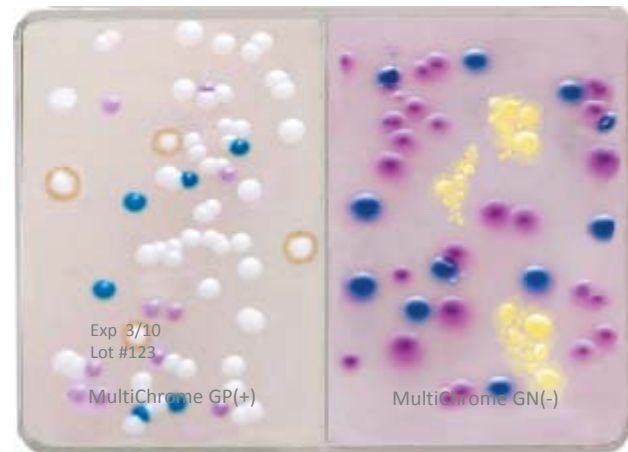
In-House Culture Procedure (continued)

Procedure: *Simple, Fast & Easy!*

- 1) Obtain sample from affected area with a swab or loop
- 2) Streak both sides of the MultiChrome plate in a zigzag fashion
- 3) Place in pre heated incubator (98.6 F or 37 C)
- 4) Read in 24 hours



Inoculated

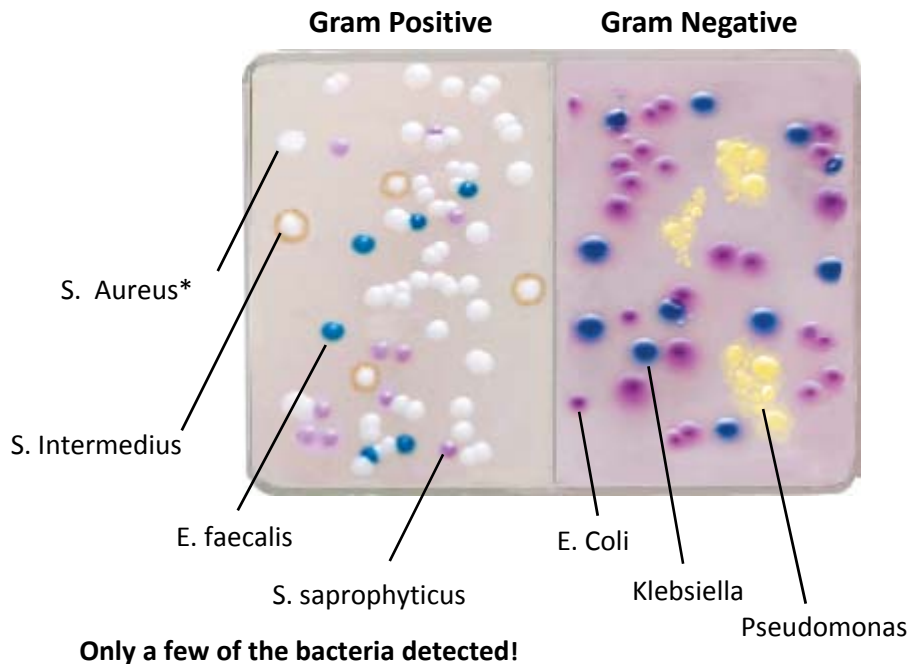


24 Hour Confirmation

“MultiChrome™ Microbiology System

In-House Culture Procedure (continued)

Reading Results:



Confirmation can be made first by its +/- Gram family and then by its distinctive color match to the reference chart included in each pack of MultiChrome™.

Veterinarians can treat at this stage with the antibiotics most appropriate for the bacteria found. A re-check in ten days is recommended

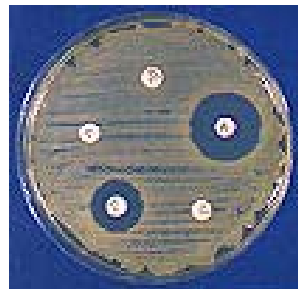
**Confirmation and Identification
in just 24 hours!**

*Can even detect super bug MRSA with the MultiChrome™ MRSA specific Test plate coming in 12/09. MRSA (Methicillin Resistant Staph Aureus) has been recently identified on companion animals and is a zoonotic.

“MultiChrome™ Microbiology System and Sensitivity Testing

We have now completed the first stage in a microbiology in-house system and we could stop there, but what about Sensitivity testing?

Simply inoculate a “Mueller Hinton” agar plate with confirmed growth from the MultiChrome™ plate, drop in antibiotic test discs and incubate for another 24 hours.



Sensitivity disk with
antibiotic discs



Kacey “MultiChrome™
Micro Incubator

Kacey MultiChrome™ Micro Incubator

Although the MultiChrome™ system can be used with conventional incubators the patented Kacey **Micro Incubator** is far from conventional. Here is why:

- Small footprint (8" wide, 13" high, 12" deep)
- Precision temperature control
- Digital temperature readout
- Sliding trays which cradle for all forms of dishes
- Clear door for observation
- Twelve individual 24 hour countdown timers
- Audible and visible alert when sample is ready
- Lightweight ABS construction, 1 year warranty
- Suitable for MultiChrome, Dermatophyte, Sensitivity and related diagnostics requiring incubation



Easy Operation:

- 1- Load Sample
- 2- Press timer
- 3- Walk away



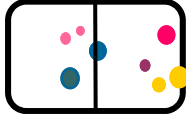
Benefits of using the MultiChrome™ Microbiology System

To best demonstrate this, let's compare the Diagnostic and Economic benefits of MultiChrome™ versus the Ref. Lab.

Diagnostics:

Benefits	MultiChrome™	Ref Laboratory
Accuracy	Within 5-10%*	Within 5-10%
Turn around time	24 hours	2-3 days
Flexibility	Culture and/or sensitivity	No stand alone Sensitivities accepted

*Well within the acceptable error range of most labs. Accuracy will improve with practice. For unresponsive bacterial agents and/or unknown etiology we do recommend the use of a Reference lab for more advanced diagnostic tests.



MultiChromeTM

Veterinary Microbiology Culture System

TM

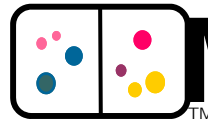


To recap, MultiChromeTM offers the following:

- **Speed:** 24 hour to confirmation, identification & treatment
- **Convenience:** In-house ability to test 9 areas affected by bacteria
- **Reliability:** Cutting edge technology with superior accuracy
- **Profit Potential:** A fraction of reference lab prices
- **Professional Curiosity:** “You were trained, you just need the tools!”



MultiChromeTM “A different way to detect bacteria!”



MultiChrome™

TM

Veterinary Microbiology Culture System

Product details:

MultiChrome™ is available in convenient packs of 5 or 10 plates:

Five packs*

Ten packs*

Each plate individually packaged and sterilised

Full color reference insert included with each pack

Shipped refrigerated, plates thaw in 5-10 min

5-6 month expiration from date of shipping

MultiChrome™ Micro Incubator*:

Each incubator comes complete, ready to use with five trays



Urea Test Strips



for the determination of urea in blood, serum or plasma

Urea Test Strips



Urea Test Strips

Principle

- The test strip contains a reaction zone and an indicator zone with a scale
- In the reaction zone, urea is specifically split into carbon dioxide and ammonia by Urease
- After diffusion through the gas phase, ammonia colours part of the pH indicator blue
- The length of the blue zone depends on Urea concentration, temperature and reaction time
- The temperature and the reaction time are constant so that the length of the blue zone indicates the urea concentration directly
- The test strips can be used up to the expiry date if stored in a closed container below 30 °C

Urea Test Strips

Assay Procedure

- Remove strip from closed container (room temperature storage)
- Dip reaction zone in serum/plasma/WB/Capillary WB or use pipette- 10 μ l
- Wipe off any excess fluid on side of tube
- Place the test strip in the slider
- Push slider into the reaction cell, reaction zone first
- Store cell horizontally
- Read at either 30 mins (normal method), 10 mins (rapid method) or 5 minutes (emergency)
- Measuring range- 2-31 mmol/L (14-180 mg/dL)

Urea Test Strips

