

*We Stand Behind Our Results*

# Sanitation Monitoring Solutions



***We Stand Behind Our Results***

**Neogen at a glance.**

**Publicly Traded On NASDAQ: NEOG**

**In business since 1982**

**Sales FY'09 \$118 million**

**Two Divisions:**

**Animal Safety – Lexington, KY**

**Food Safety – Lansing, MI**





Microsoft®

CISCO SYSTEMS



Bristol-Myers Squibb Company

FORTUNE

Home Fortune 500 Brainstorm: TECH Investing Management Rankings

## Fortune 40: The best stocks to retire on.

SMALL CAP: Neogen

29 of 40

Back

Next

Ticker: NEOG

52 week range: \$17-32

Market cap: \$327 million

P/E Ratio: 24

Return on Assets: 10%

Free cash flow (millions): \$18



From pistachios to peanut butter, food recalls make headlines every year -- causing illness and sometimes death for consumers and spelling trouble for companies. That's where biotech Neogen has an edge.

This Michigan-based company has built a business around food safety, with products that range from medical devices for cattle to tests for bacteria, allergens, or toxins in edibles from poultry to ice cream. Neogen, whose fiscal year ends in May, recently proved its recession resilience by posting 11% revenue growth and a 6% increase in net income for the brutal quarter ending in February.

- How we picked them
- Last year's Fortune 40

Analyst Steve Crowley of Craig-Hallum Capital Group is forecasting that as the economy improves, Neogen will be able to grow earnings by 13% to 14% in fiscal 2010. "The penalty for not being vigilant about product quality is that you're going out of business," he says, referring to Neogen's customers. "That's a pretty tremendous driver to demand."



Johnson & Johnson

DIAGEO



© Coca-Cola Ltd.

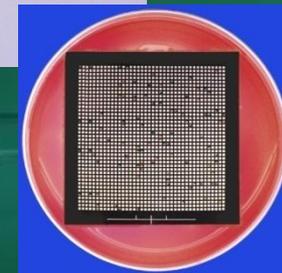
PVCOMALL.COM



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**AccuPoint<sup>2</sup>**

**Over 25 years of providing customers with the industry's broadest, most innovative product line.**



**my-labs<sup>®</sup>**

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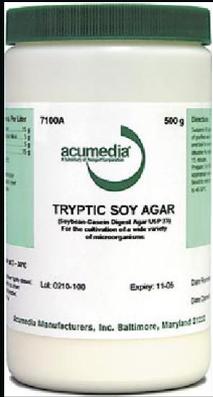
**Portable lateral flow device reader**

# The Food Safety industry's most complete line of testing solutions

**Automated pathogen detection system**



**Dehydrated culture media**



**DNA probe technology**



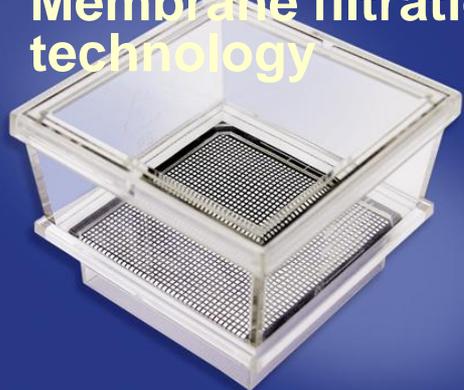
**Microwell technology**



**Lateral flow technology**



**Membrane filtration technology**



**Automated routine micro**



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# Diagnostic Test kits for:

Toxins

Bacteria

Unique Proteins

Genetically Modified

Organisms

Allergens

Drug residue

Plant Diseases

Culture Media

Sanitation

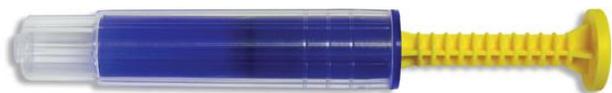


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# Sanitation Monitoring Solutions

AccuClean<sup>TM</sup>



hy-labs<sup>®</sup>



**We Stand Behind Our Results**

**AccuPoint<sup>2</sup>**



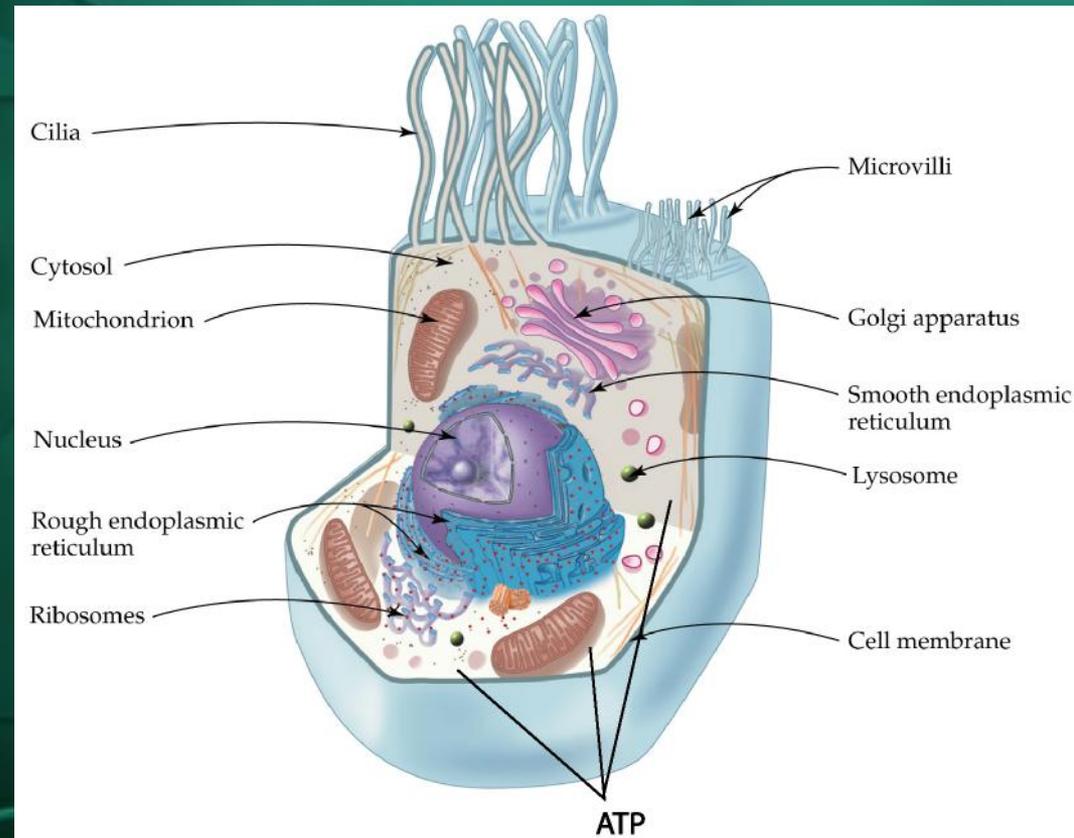
**The next generation  
ATP cleaning  
validation and  
tracking system.**

 **NEOGEN**  
CORPORATION

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# ATP Hygiene Monitoring

- Adenosine Triphosphate (ATP) - the energy source in all living cells.
- reaction with luciferin / luciferase produces light.



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# **ATP Hygiene Monitoring**

- As food or other organic material comes into contact with surfaces, it leaves ATP.**
- After we clean, the amount of ATP that remains is a direct indication of how much food, bacteria and other organic matter that is still left on the surface.**



## **ATP Sanitation Monitoring**

- **has become the standard method for determining cleanliness levels on food contact surfaces during past ten years.**
- **not a direct indicator of bacterial presence. Simply the potential for contamination.**
- **monitoring and verification of HACCP and SSOP.**

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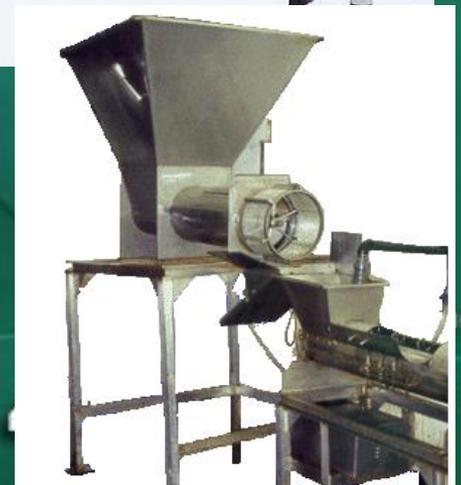
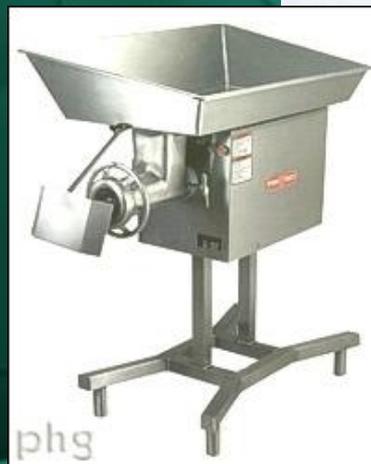
# **ATP Sanitation Monitoring**

**The need.**

**Is a universal application.**

**Every food production facility must clean food contact surfaces.**

- after shift change**
- after daily production ends**



## ***We Stand Behind Our Results***

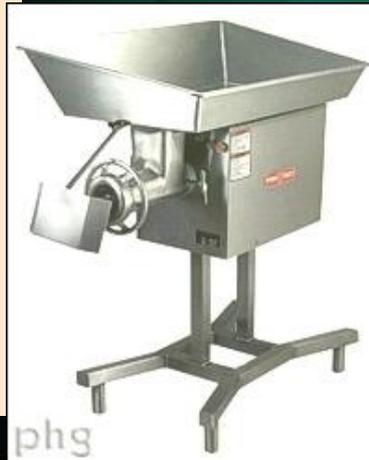
### **Cleaning crew:**

- contract company
- company cleaning crew
- line workers after shift



**Since “Dirt” is biological, it contains the potential for microbiological contaminants.**

- pathogenic bacteria
- mold, yeast
- spoilage organisms



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## **The need.**

**How do you know if it's clean?**

**ATP Systems provide an objective, measurable, immediate way to determine hygiene / cleanliness levels.**



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# Neogen History

**Marketing ATP Systems since 1996**

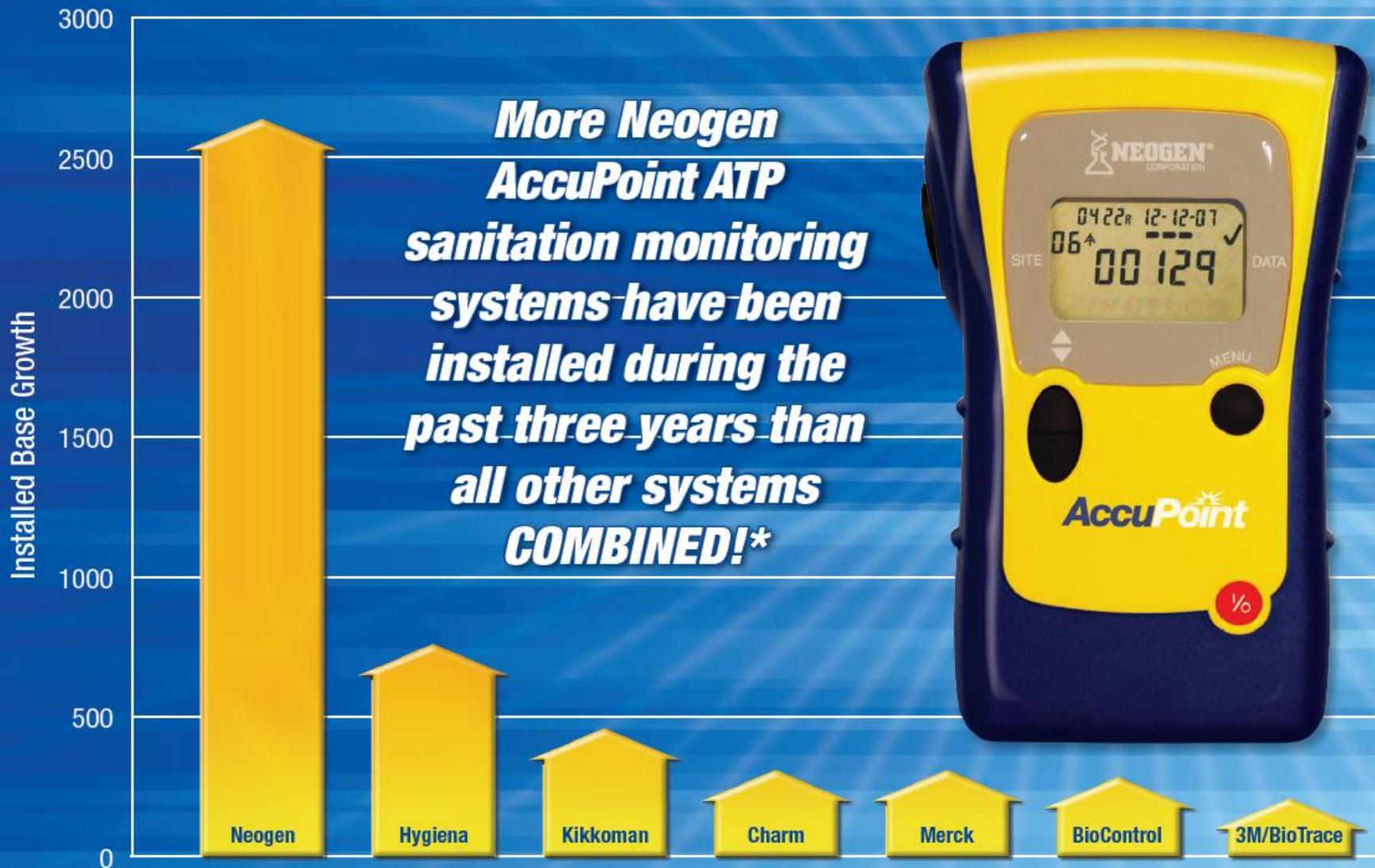
**Major Worldwide supplier**

**Installed base of more than 3900 units**



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# ***The Clear Leader Has Emerged***



**We Stand Behind Our Results**

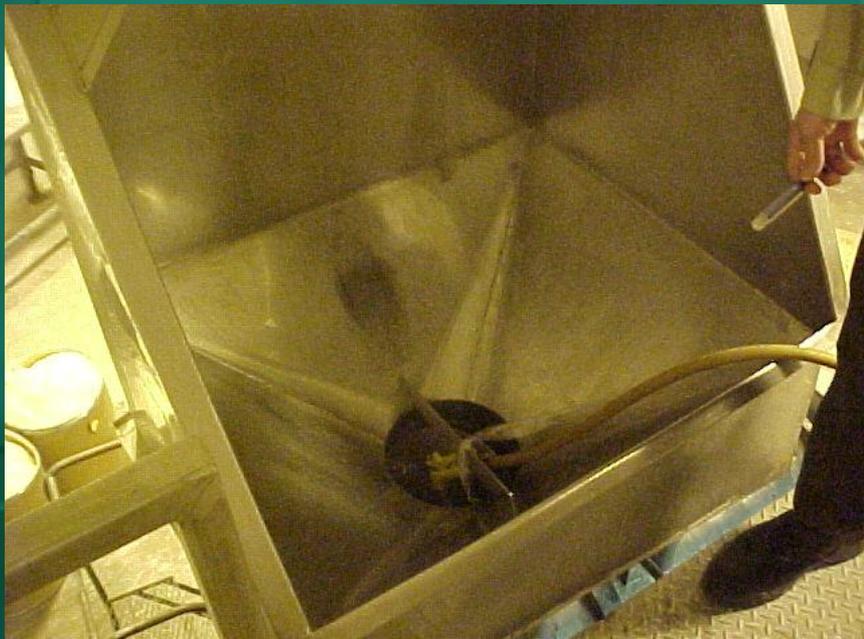
**Trust is earned**

**World  
Class  
portfolio of  
customers.**





# Spices and Seasonings Company, Elmhurst, IL



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**Kosher Seafood  
Company,  
Chicago, IL**

**Products: Kosher  
Pickled Herring  
and Smoked  
Salmon**



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# **Critical Elements of a Sanitation Monitoring System**



- 1. It must be easy to use. Many new users.**
- 2. It must provide consistent results. Otherwise, what's the point?**

**The AccuPoint 2 system is the most technologically advanced yet easiest to use ATP monitoring system in the world. It's designed to deliver a more consistent result.**

# **Product Advantages**

- 1. AccuPoint is the easiest ATP system in the world. Icon-based symbols, automatic reading upon closing the door, automatic increment of stations and single-button operation mean even a novice user will be up and running in no time.**
- 2. Third generation Silicon photodiode / solid-state technology means a more dependable system so you won't have to send in your unit for service as often.**
- 3. Smallest, lightest instrument on the market means you can take it with you to the point of sampling. The holster even allows for virtually hands-free operation.**

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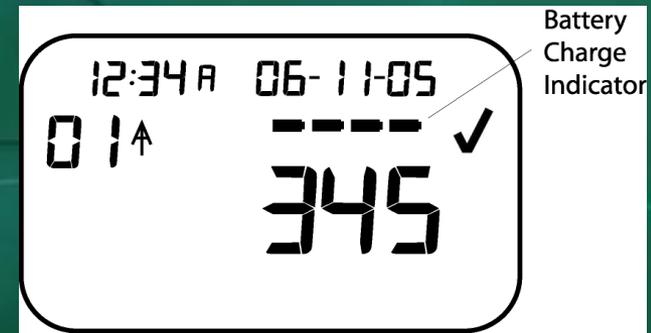
## Product Advantages

4. Rugged, durable design that will stand-up to the harshest environment.

5. Off-the-shelf NiMh batteries for the utmost in convenience and no battery degradation from “memory loss.”

6. 15 hour battery life is twice what the competition offers so you won't get stranded out in your plant.

7. Low battery indicator means not having to guess whether to continue sampling.



# Product Advantages

8. Large, color LCD with site number, site group, site name and user displayed. Results are color-coded (green = pass, red = fail).



**Active record  
count**

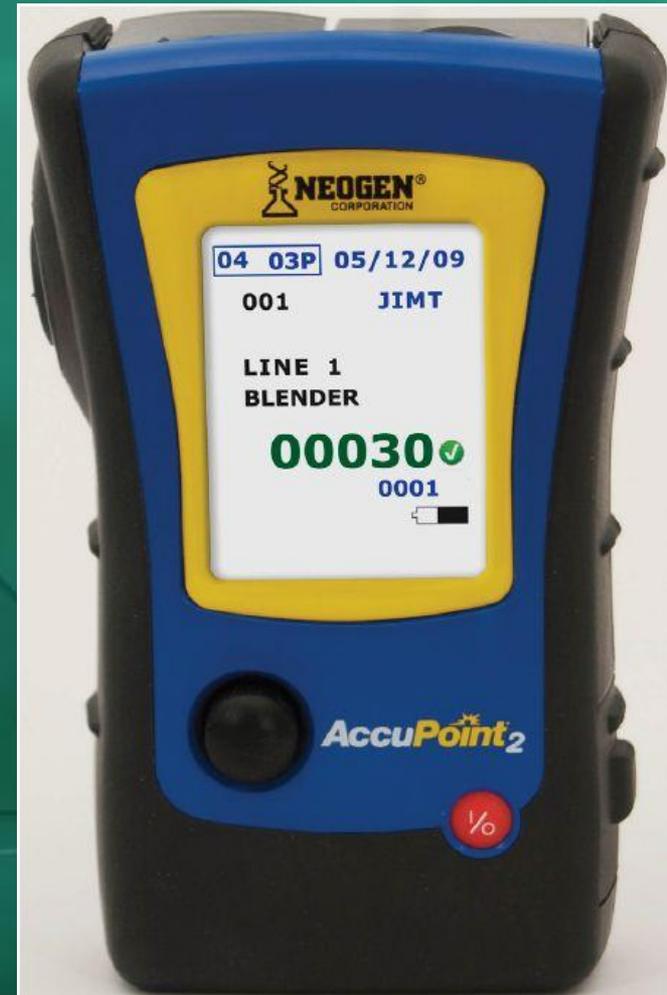
## 9. The utmost flexibility for choosing testing sites:

- **Manually,**
- **Random Sample Plans,**
- **Smart Random – all / some sites that have not been tested since ...**
- **Random Sample Plans by site groups (5 from Line 1, 4 from Line 2, etc...)**
- **Combination of manual and random,**
- **Real-time random – instrument chooses site at random.**

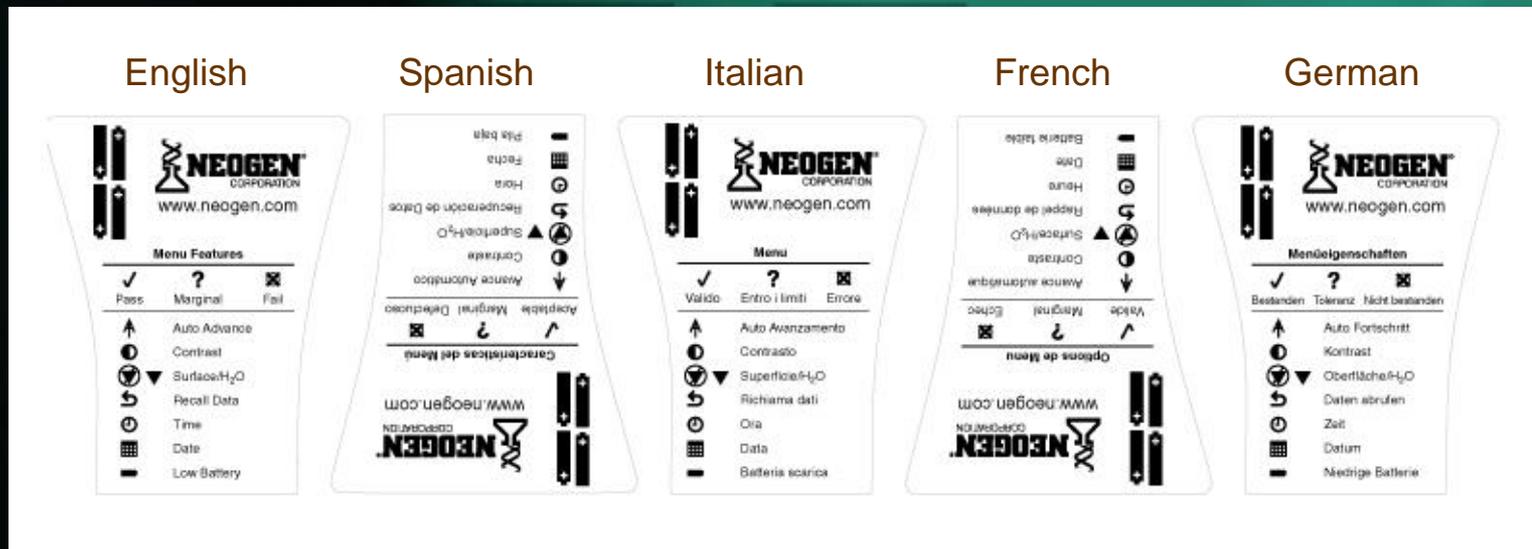
## 10. Easiest system in the world to use V2.0: NO BUTTON OPERATION!

If you use any of the Sample plan creation routines from the Data Manager V2.0 program and download your plan to the AccuPoint 2 instrument:

1. Follow the display to first test site,
2. Take test, input in instrument,
3. Follow the display to next test site.



11. We've designed the AccuPoint system to be multi-lingual. Not only have we utilized easily recognizable symbols for the operation of the system, we've provided User's Guides in English, Spanish, Italian, French and German.



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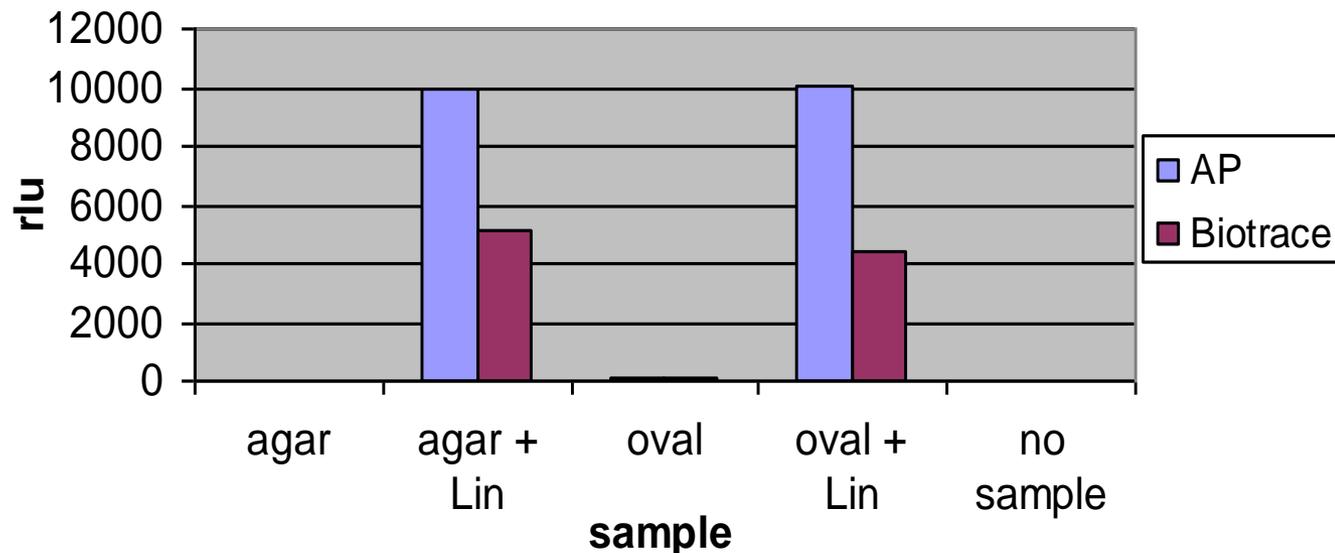
## Product Advantages

**11. The AccuPoint samplers are better for breaking through biofilms to determine the true sanitation level of a surface.**



**Biofilms have been implicated in many large product recalls.**

**AccuPoint vs. Biotrace recovery of ATP from a Biofilm  
( $1e7$  cfu *Listeria innocua* per  $100\text{ cm}^2$ )**



## 13. The very latest technology:

- 32-bit, high throughput microprocessor,
- 3<sup>rd</sup> generation Si photodiode for enhanced sensitivity and “truer” clarity of light detection,
- 2X the data storage capacity of original AccuPoint system to accommodate up to 999 sites,
- High-speed USB data transmission,
- Full compliment of self-test diagnostics at boot-up.



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## **Backed by Neogen**

**1. World leader in ATP technology so you can be sure that we've designed and engineered the system to the market's needs and that we back up the system with world class service.**

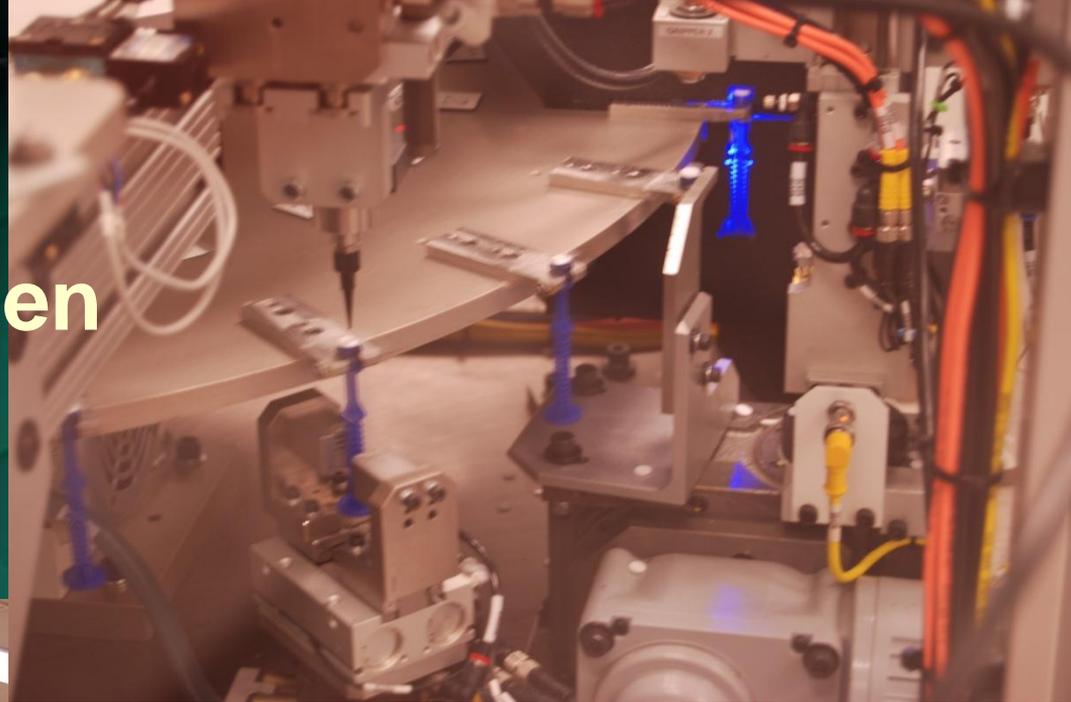


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**Backed by Neogen**

**2. State-of-the-art,  
fully automated,  
clean-room  
manufacturing.**

**Objective: More  
consistent results.**



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# Backed by Neogen

3. Calibration Assurance Plan. Available annual on-site audit with calibration check and cleaning means you don't have to wonder if your system's in calibration. We provide a calibration assurance certificate for auditors and SSOP / HACCP / ISO compliance.

1	A	B	C	D	E	F	G	H	I	J	K	L	M
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**AccuPoint**  
*Simply Brilliant Science*

**AccuPoint Field Calibration Audit**

Date: \_\_\_\_\_

Customer name: \_\_\_\_\_

Contact: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Neogen technician: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Description of service: Annual calibration audit.

**Methodology:** Light-emitting and stable gaseous-tritium bead cartridges at four levels plus a blank are compared to calibrated manufacturing standards. Five replicates are administered and compared against their arithmetic average and to the calibrated standard to determine the instrument's calibration relative to itself and to manufacturer's standards. A reading variance of greater than **10%** indicates a potential out of calibration state. The first failure indicates the need for cleaning of the optical lens. If failure occurs following this procedure, the instrument must be returned to Neogen for service.

Standard	Reading					Reading			Standard	
	1	2	3	4	5	Variance	%	Average	Variance	%
125	100	150	145	125	110	-50	7.9%	126	-1	0.8%
250	225	248	235	221	258	37	3.1%	237	13	5.0%
525	505	545	495	750	495	255	9.1%	558	-33	6.3%
75	70	45	53	78	98	28	8.1%	69	6	8.3%
25	25	15	23	30	20	15	13.3%	23	2	9.6%

Average Variance of Instrument:		Average Variance to Standard:	
Value	%	Value	%
57	8.32%	-2.56	6.00%

**Conclusion:** The instrument is / is not within manufacturer's calibration.

Signed: \_\_\_\_\_

Neogen Corporation  
620 Leshar Place  
Lansing, MI 48912  
800-234-5333



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## **Backed by Neogen**

**World-class training programs.**

- **On-site available**
- **Five-module CD training software.**
- **Webex Training**



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# Components

Monitor - Luminometer



Consumable Samplers



PC Software

**Summary**

Records	Total	Pass	Marginal	Fail
15	3	2	13.3	66.7
Percent	100			

Site Name	Date Collected	Reading	Result	Date Transferred	Unit ID	Site Number	Fail Limit	Marginal Limit
1	08/09/2002 12:26	4.7	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
2	08/09/2002 12:37	4.7	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
3	08/09/2002 3:42	4.7	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
4	08/12/2002 12:34	3.8	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
5	08/12/2002 12:36	3.7	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
6	08/12/2002 12:37	3.9	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
7	08/12/2002 12:38	3.8	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
8	08/12/2002 12:39	3.6	Fail	10/03/2002 10:27	Detector22	1	2.5	3.5
9	08/12/2002 1:00	2.3	Pass	10/03/2002 10:27	Detector22	1	2.5	3.5
10	08/13/2002 2:39	1.4	Pass	10/03/2002 10:27	Detector22	1	2.5	3.5
11	08/13/2002 2:42	1.3	Pass	10/03/2002 10:27	Detector22	1	2.5	3.5
12	08/15/2002 10:48	2.1	Marginal	10/03/2002 10:27	Detector22	1	1.5	2.5
13	08/15/2002 10:49	2.6	Fail	10/03/2002 10:27	Detector22	1	1.5	2.5
14	08/20/2002 11:24	2.3	Marginal	10/03/2002 10:27	Detector22	1	1.5	2.5

**Sample.app Filter: All Records**

**Sample.app Filter: All Records**

Legend: Pass (Green), Marginal (Yellow), Fail (Red)

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**AccuPoint<sup>2</sup>**



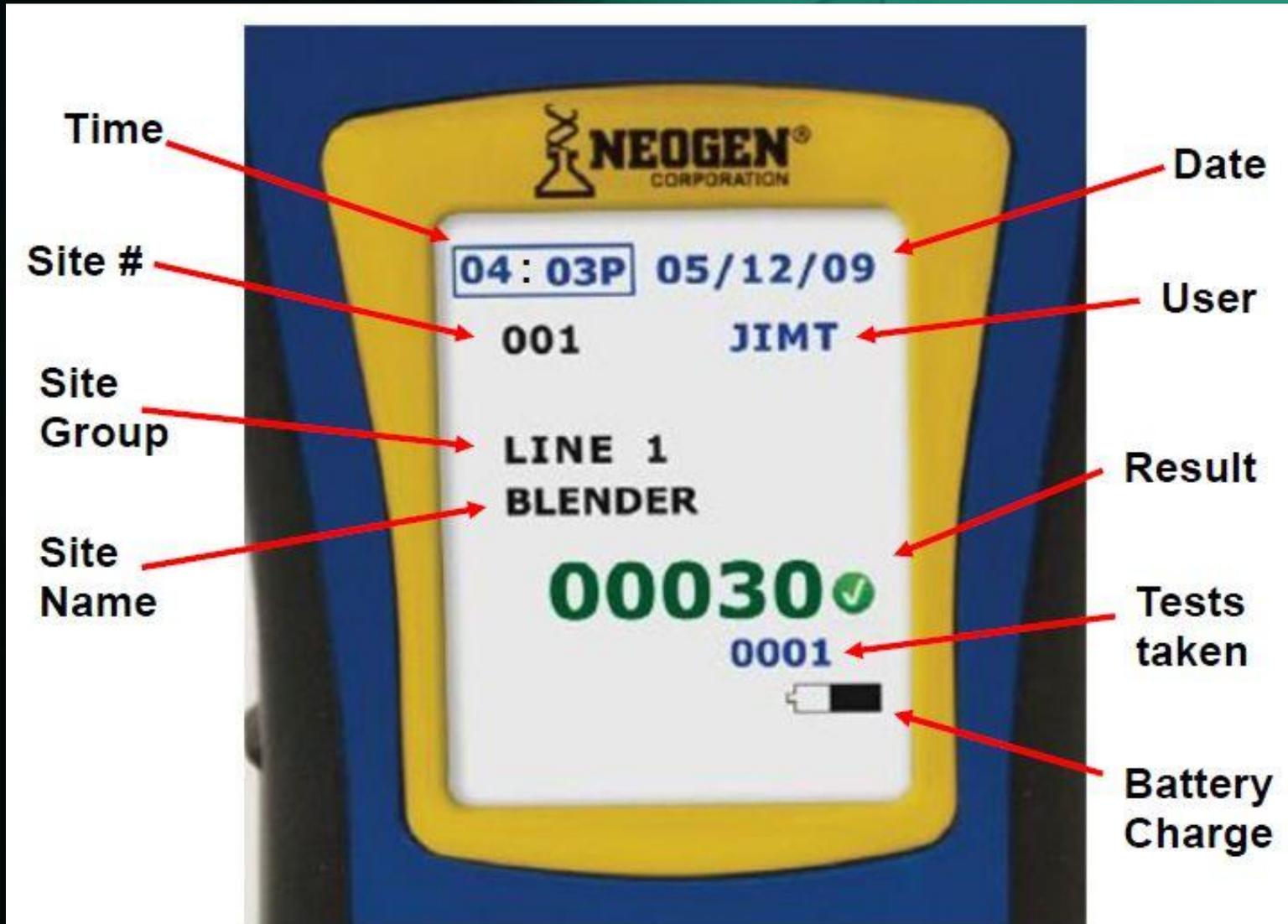
**Customer designed!**

**The next  
generation  
from the  
leader in ATP  
systems.**



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## Large, color LCD



**We Stand Behind Our Results**

**AccuPoint<sup>2</sup>**



**Single button  
operation.**

**Modeled after  
universally easy-  
to-use cell  
phones and the  
iPod.**

 **NEOGEN**  
CORPORATION



**Enter user information to track who's taking the test**

**Record count is displayed at boot-up.**

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# AccuPoint ATP Samplers



**We Stand Behind Our Results**

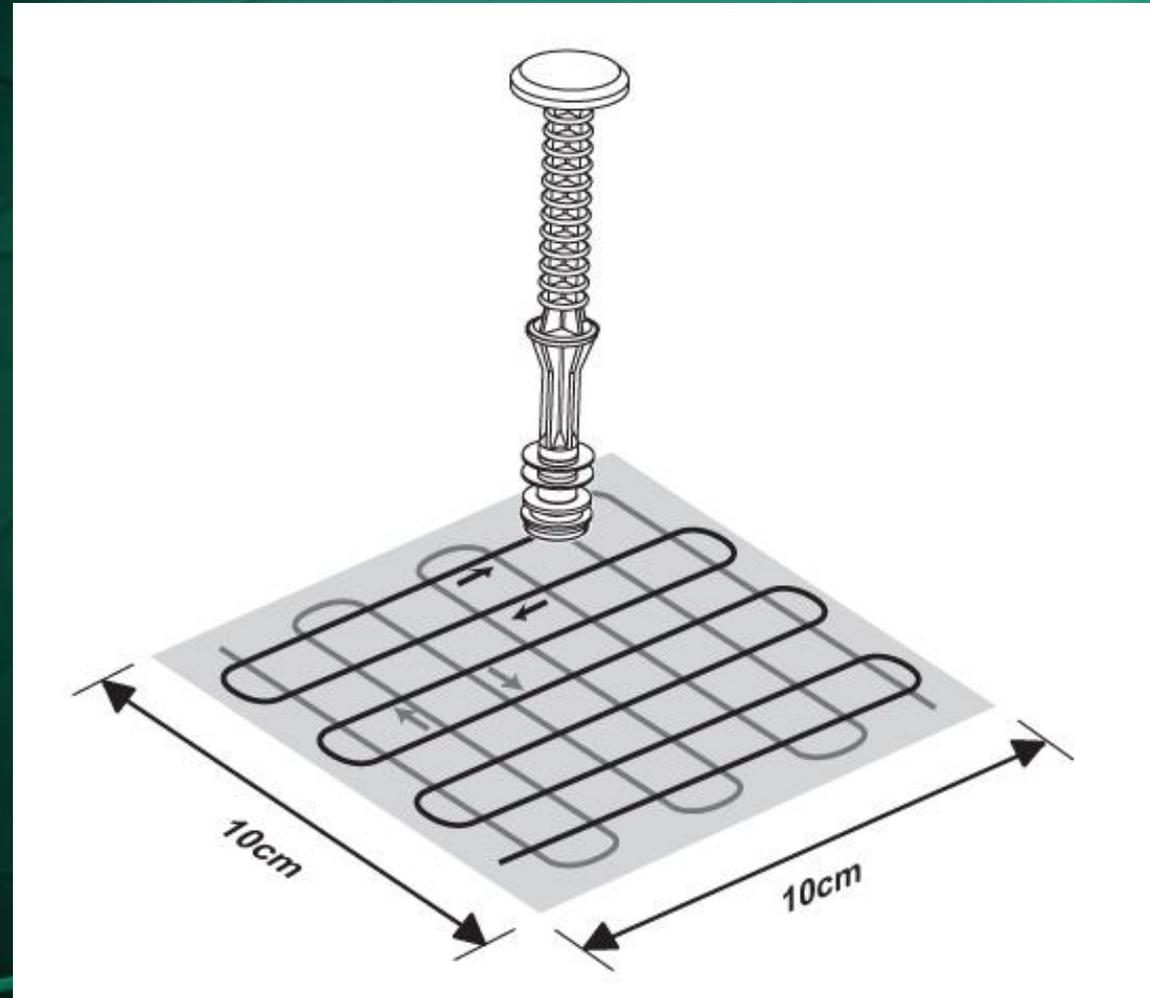
# AccuPoint ATP Samplers



**Each engineered for specific application**

## How do I take a sample?

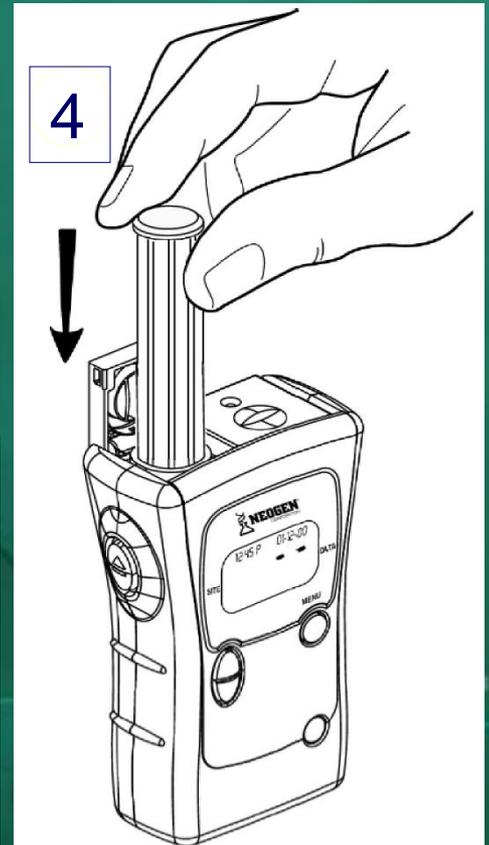
ATP from surface  
is collected on  
tip.



# We Stand Behind Our Results

## How do I take a sample?

1. Place sampler back in housing.
2. Activate
3. Shake.
4. Place assembly in instrument and close door.



**We Stand Behind Our Results**

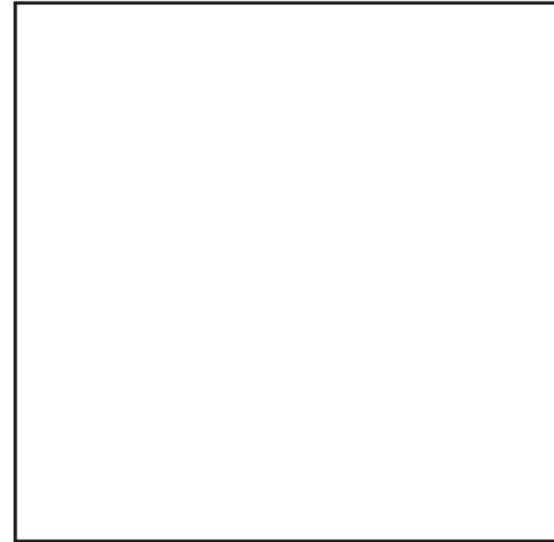
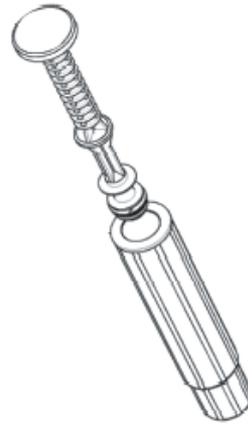
**Engineered  
from the  
ground up to  
be better!**

- More consistent.**
- Better able to reach into cracks and corners.**

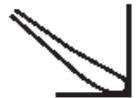
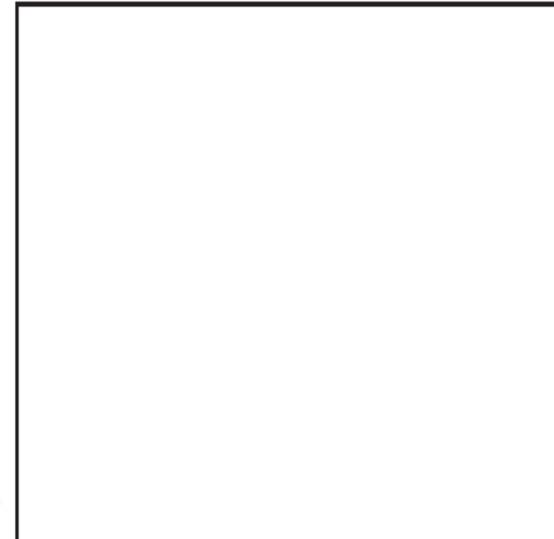
**AccuPoint**

Simply Brilliant Science

AccuPoint provides a more consistent sample.



## **AccuPoint Surface Sampler**



Standard swab

AccuPoint can get into the crevices better

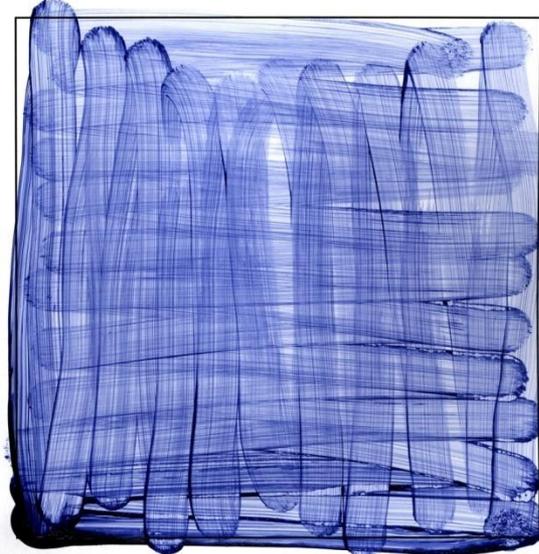
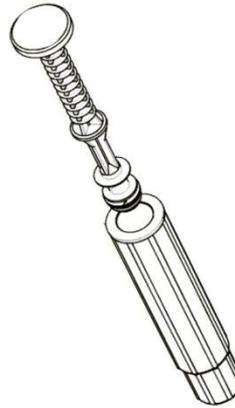
**We Stand Behind Our Results**

**Engineered  
from the  
ground up to  
be better!**

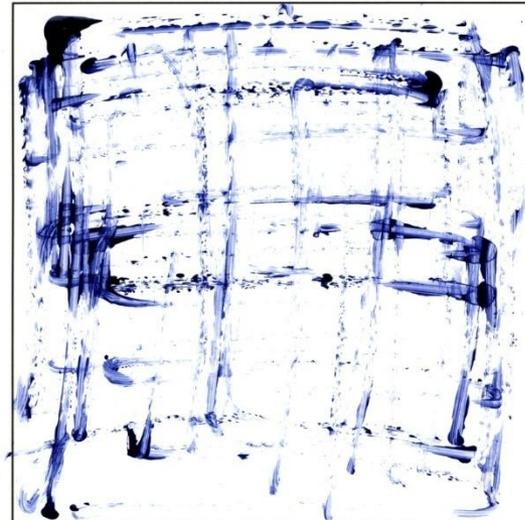
- More consistent.**
- Better able to reach into cracks and corners.**

**AccuPoint**  
Simply Brilliant Science

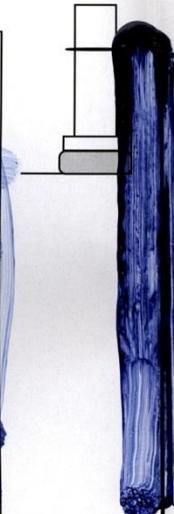
AccuPoint provides a more consistent sample.



AccuPoint ATP extraction sampler



Standard swab



AccuPoint can get into the crevices better



*We Stand Behind Our Results*

## AccuPoint Access sampler

Precision engineered to accurately sample narrow orifice and difficult to reach areas.



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## **Water Test**



- simply dip into liquid sample
- detects residual and bacterial ATP
- record liquid samples in the Test Plan and download,
- instrument displays liquid drop icon when at a liquid test site.

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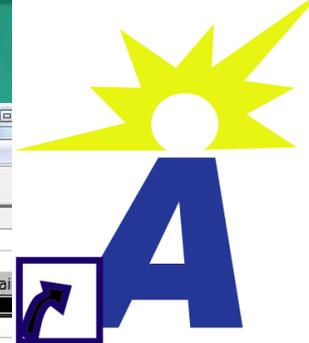
**AccuPoint<sup>2</sup>**



- AccuPoint extender optimal solution for reaching tight places.

 **NEOGEN**  
CORPORATION

# We Stand Behind Our Results



AccuPoint Data Manager

File Edit View Tools Help

All Records

Summary	Total	Pass	Marginal	Fail
Records	105	103	0	2
Percent	100	98.1	0	1.9

	Unit Name	Site Name	Site Group	Date Collected	Reading	Result	Description	Comments	Date Transferred	Unit ID	Site Number	Fail
1	Unit # 2	Conveyor # 18	Finishing	8/2/2004 9:37 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	13	
2	Unit # 2	Conveyor # 20	Finishing	8/2/2004 9:38 AM	5	Pass			8/2/2004 10:07 AM	AP-0594-B	15	
3	Unit # 2	Conveyor # 15	Finishing	8/2/2004 9:39 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	10	
4	Unit # 2	Conveyor # 11	Finishing	8/2/2004 9:39 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	7	15i
5	Unit # 2	Conveyor # 02	Finishing	8/2/2004 9:40 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	2	15i
6	Unit # 2	Conveyor # 08	Finishing	8/2/2004 9:41 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	4	15i
7	Unit # 2	Conveyor # 04	Finishing	8/2/2004 9:43 AM	13	Pass			8/2/2004 10:07 AM	AP-0594-B	3	15i
8	Unit # 2	Conveyor # 01	Finishing	8/2/2004 9:45 AM	0	Pass			8/2/2004 10:07 AM	AP-0594-B	1	15i
9	Unit # 2	Conveyor # 14	Finishing	8/2/2004 9:48 AM	15	Pass			8/2/2004 10:07 AM	AP-0594-B	9	15i
10	Unit # 1a	Conveyor # 17	Finishing	8/11/2004 9:48 AM	0	Pass			8/16/2004 11:23 PM	AP-0413-7	12	15i
11	Unit # 1a	Conveyor # 15	Finishing	8/11/2004 9:49 AM	0	Pass			8/16/2004 11:23 PM	AP-0413-7	10	15i
12	Unit # 1a	Conveyor # 19	Finishing	8/11/2004 9:50 AM	22	Pass			8/16/2004 11:23 PM	AP-0413-7	14	15i
13	Unit # 1a	Conveyor # 11	Finishing	8/11/2004 9:51 AM	4	Pass			8/16/2004 11:23 PM	AP-0413-7	7	15i
14	Unit # 1a	Conveyor # 08	Finishing	8/11/2004 9:51 AM	118	Pass			8/16/2004 11:23 PM	AP-0413-7	4	15i
15	Unit # 1a	Conveyor # 09	Finishing	8/11/2004 9:52 AM	37	Pass			8/16/2004 11:23 PM	AP-0413-7	5	15i
16	Unit # 1a	Conveyor # 01	Finishing	8/11/2004 9:53 AM	33	Pass			8/16/2004 11:23 PM	AP-0413-7	1	15i
17	Unit # 1a	Conveyor # 09	Finishing	8/11/2004 9:55 AM	47	Pass			8/16/2004 11:23 PM	AP-0413-7	5	15i
18	Unit # 1a	Conveyor # 18	Finishing	8/12/2004 9:37 AM	0	Pass			8/16/2004 11:23 PM	AP-0413-7	13	15i
19	Unit # 1a	Conveyor # 19	Finishing	8/12/2004 9:38 AM	0	Pass			8/16/2004 11:23 PM	AP-0413-7	14	15i
20	Unit # 1a	Conveyor # 20	Finishing	8/12/2004 9:38 AM	11	Pass			8/16/2004 11:23 PM	AP-0413-7	15	15i
21	Unit # 1a	Conveyor # 11	Finishing	8/12/2004 9:39 AM	40	Pass			8/16/2004 11:23 PM	AP-0413-7	7	15i
22	Unit # 1a	Conveyor # 08	Finishing	8/12/2004 9:41 AM	104	Pass			8/16/2004 11:23 PM	AP-0413-7	4	15i

Example Data\_2.apb  
Filter: All Records

Reading

Record Number

Example Data\_2.apb  
Filter: All Records

## DataManager

■ Pass   
 ■ Marginal   
 ■ Fail

**We Stand Behind Our Results**



**Trust Green to know it's clean**





## Product Description:

Simple, fully self-contained test for the detection of protein and simple sugars on food contact surfaces.



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**Application:**

**To quickly and objectively determine the effectiveness of cleaning procedures in a food production facility.**





**Direct benefits of the system:**

- 1. Fast - results in ten minutes means you can do something to correct the problem.**
- 2. Objective - Vs subjective visual. Science based.**
- 3. Consistent - no matter who is doing the evaluating.**
- 4. Extremely easy to use.**
- 5. Accurate - can not see some residue / contamination.**
- 6. HACCP / SSOP monitoring.**



**Primary benefit of the system:**

**A cleaner facility means a higher degree of safety for customers, greater shelf-life and higher quality product.**

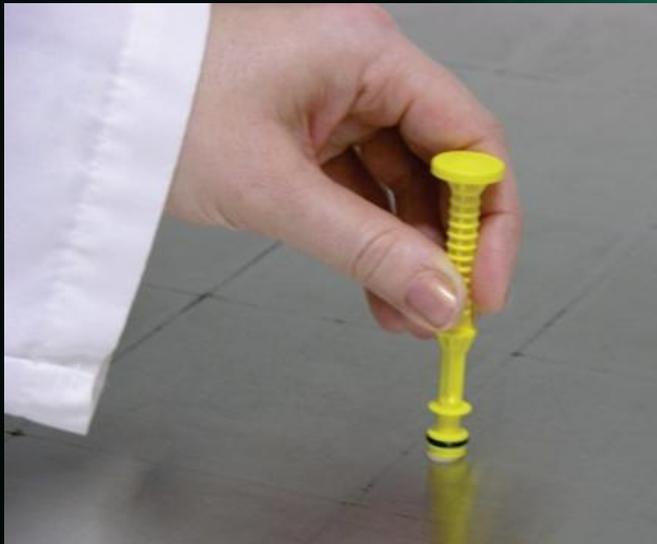


## How does the system work?

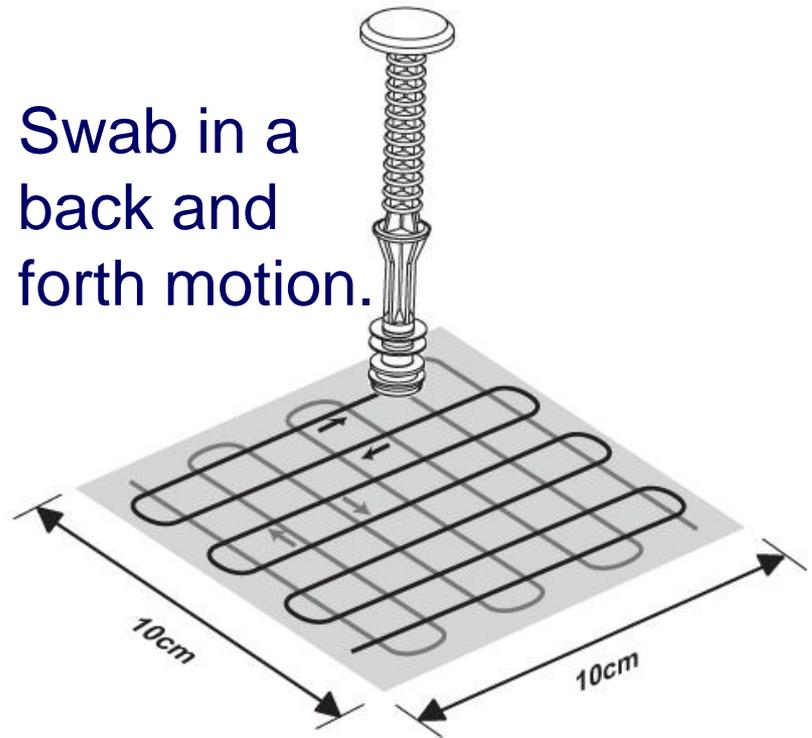
The chemistry inside the sampler tip turns color depending on the amount of protein detected on the sampled surface.

## How does the system work?

**Remove the yellow sampler and swab a 4" by 4" area.**



Swab in a back and forth motion.



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## **How does the system work?**

**Return the sampler to  
it's cartridge and  
activate.**





## How does the system work?

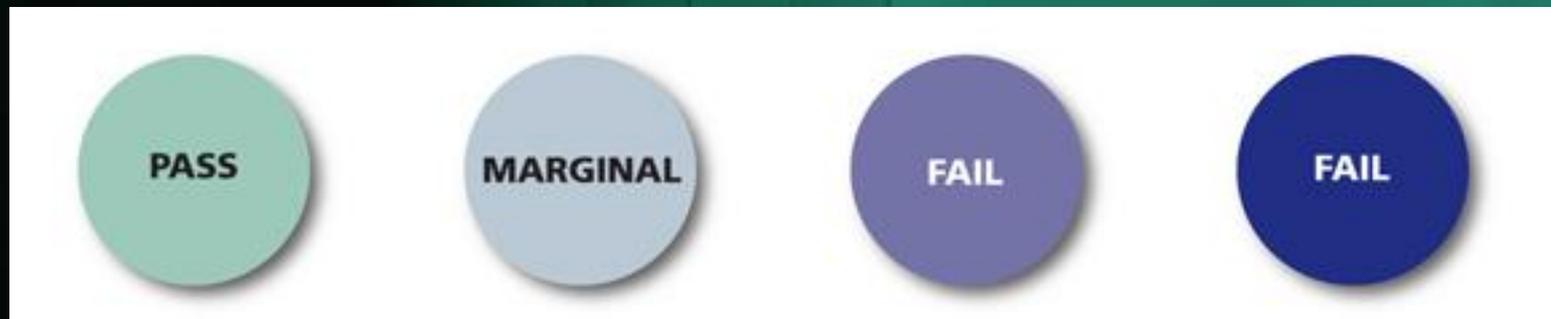
Shake and wait ten minutes, turn the sampler over and check the color of the reagent disk.

The color change will occur here.





**Four possible results. Green means that the sampled surface was clean. Purple means that it was dirty.**





## **Features of the system:**

- 1. No instrument required.**
- 2. Easy to use. Little training required.**
- 3. Measurable results.**
- 4. No refrigeration or special handling.**
- 5. More consistent sample than swabs.**



## **Features of the system:**

**6. Manufactured in state of the art clean-room in Lansing, Michigan.**



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**hy-labs**<sup>®</sup>

## agar slides

**Coliforms**



**Total Plate  
Count**



**Yeast and  
mold**

 **NEOGEN**<sup>™</sup>  
CORPORATION

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# hy-labs agar slides



hy-id-label

Name \_\_\_\_\_

Sample from \_\_\_\_\_

Ref. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

FOR TESTING PURPOSES ONLY **hy-labs**

hy-id-label

Name \_\_\_\_\_

Sample from \_\_\_\_\_

Ref. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

FOR TESTING PURPOSES ONLY **hy-labs**

hy-id-label

Name \_\_\_\_\_

Sample from \_\_\_\_\_

Ref. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

FOR TESTING PURPOSES ONLY **hy-labs**

**hy-labs** Hy Laboratories Ltd.  
Park Tamar  
76526 Rehovot, Israel

Type: DS 006  
Total Count /  
Total Coliforms

Lot: 6075  
Exp. Date: 10.02.05

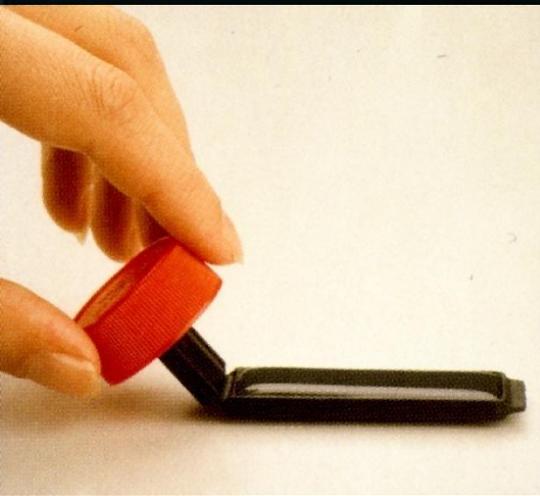
Storage at: 15-22 °C

NOT FOR HUMAN USE NOR ANY DRUG PURPOSE

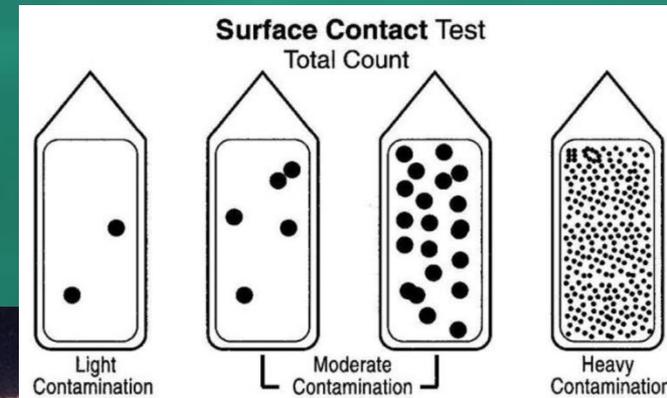


Procedure

1. Apply slide to surface to be sampled.

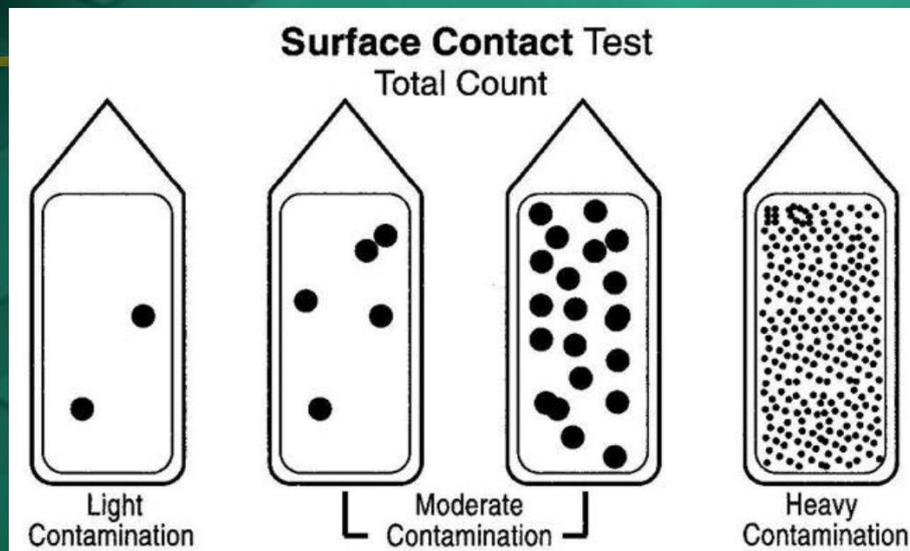


2. Incubate for 48 hours at 30-35°C for TPC and Y&M, and 18 hours for E. coli / Coliforms

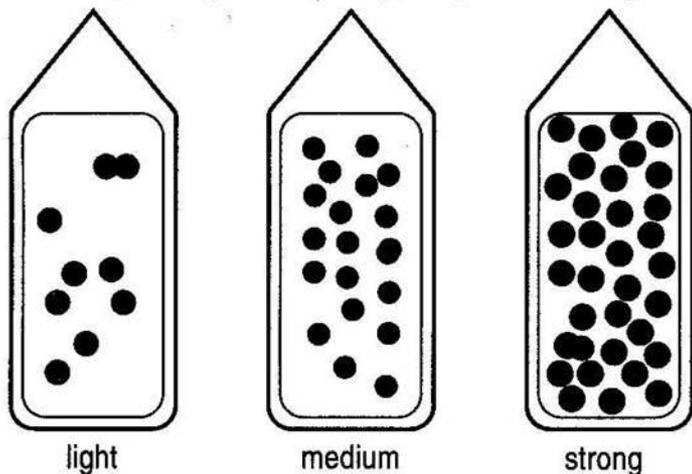


3. Compare to chart for interpretation.

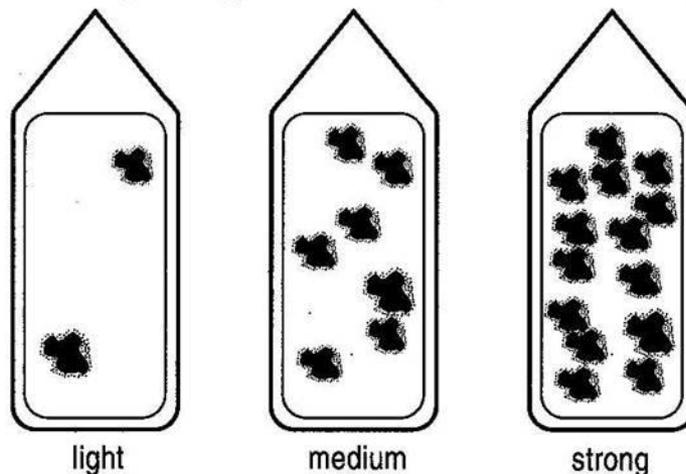
## Comparator charts



**Yeasts** (Yeasts grow as creamy, compound - looking colonies)



**Molds** (Molds appear filamentous, rather like cotton wool)



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**The industry's leading  
solutions for sanitation  
monitoring.**

