

# LIGHTNING MVP System



# Lightning MVP System

Control (HACCP+SSOP)



Swab-uri pentru lichide si pentru Suprafete



Accesorii

pH

Temperatura

Conductivitate



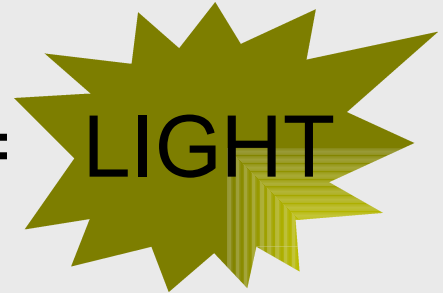
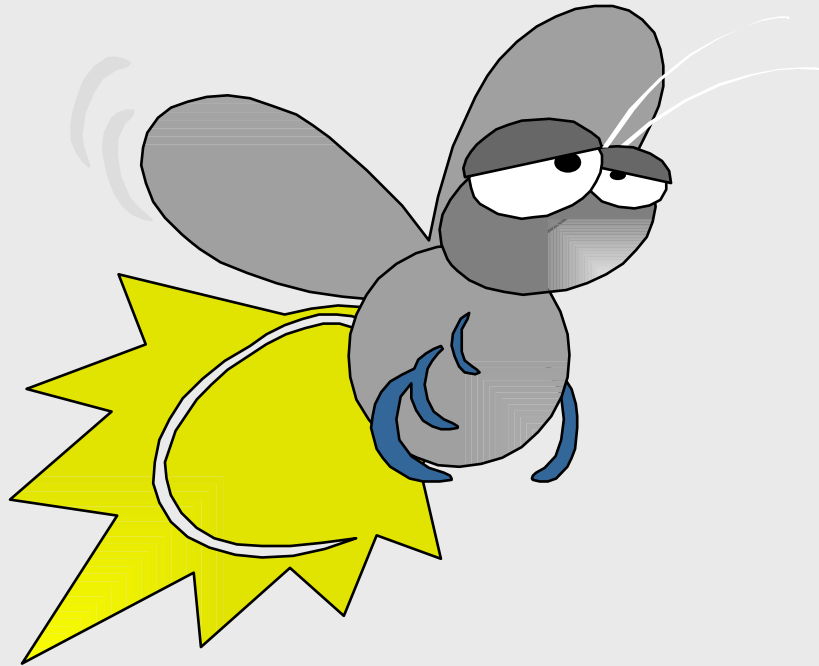
BIOCONTROL  
Results. Right now.



# Monitorizare ATP Prin Bioluminescenta Cel mai complet si eficient proces in monitorizarea igienei.



# ATP BIOLUMINESCENCE



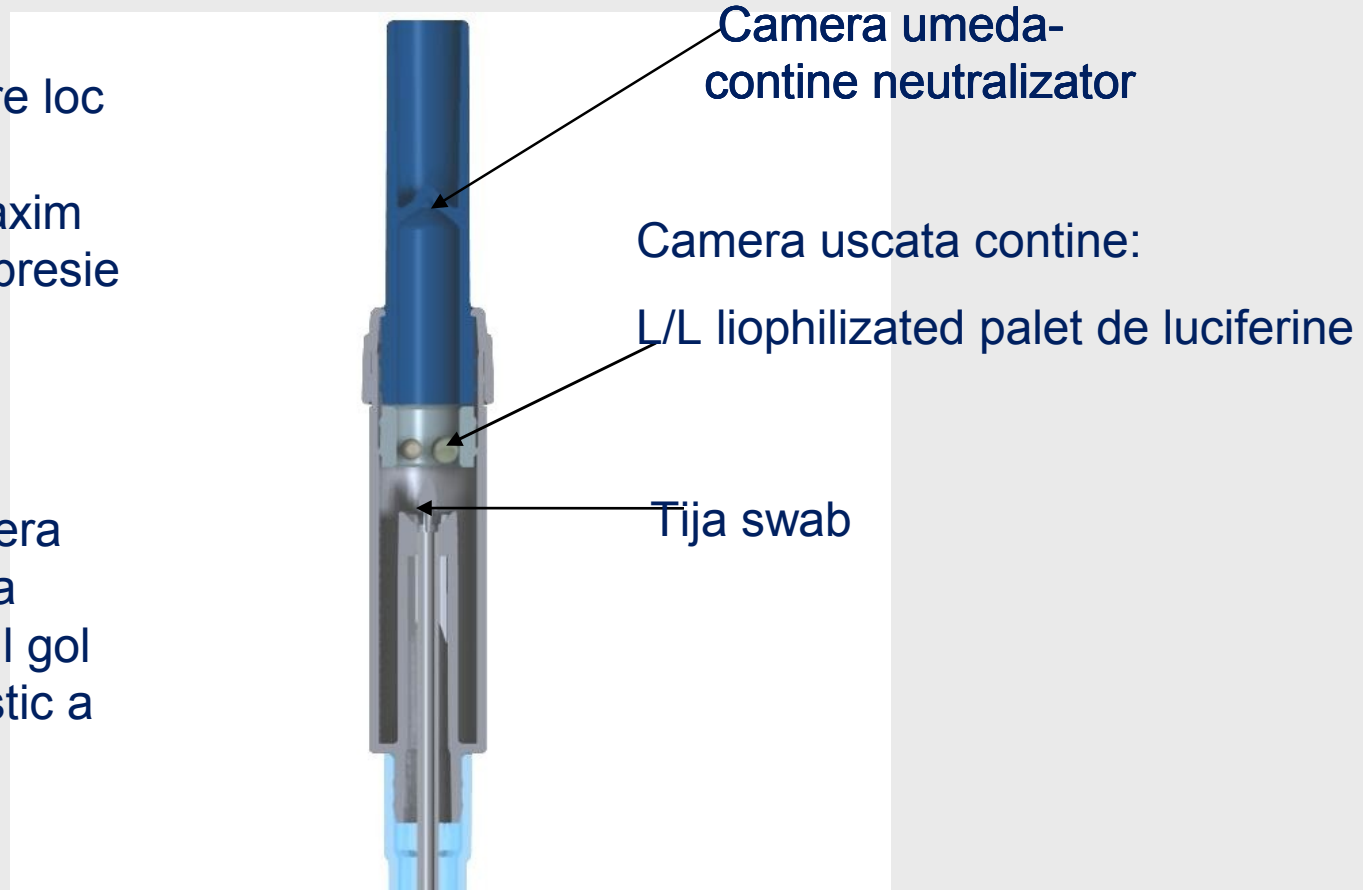
# De ce Lightning MVP este un instrument pentru HACCP?

- ➔ **Monitorizarea igienei pe suprafete:** utilizand swab-uri pentru determinarea ATP de pe suprafete.
- ➔ **Monitorizarea calitatii apei:** prin utilizarea de swab-uri pentru lichide
- ➔ **Determinarea Temperaturii:** utilizand sonda MVP pentru temperatura
- ➔ **Determinarea pH-ului:** utilizand electrodul MVP
- ➔ **Determinarea Conductivitatii** utilizand proba de conductivitate dar si pentru masurarea Concentratiei produselor de dezinfectie, detergentilor si fluidelor in general.



# MVP swab

- Activarea dispozitivului are loc prin apasarea pistonului la maxim pana la decompresie maxima
- In momentul activarii, acul strapunge camera uscata si solutia merge in spatiul gol al cuvei de plastic a dispozitivului



# MVP swab

1. Soluția trece prin interiorul tijei swab-ului și ajunge în partea de jos a tubului unde este spațiul gol, swab-ul rămânând în final impregnat în soluția tampon



**Acest spațiu gol care acum conține soluția de neutralizare+L / L liophilized palet de luciferine+ATP proba, permite ATP-ului să fie bine spălat. Citirea rezultatului la aparat nedepinzând de poziția în care este așezat swab-ul.**

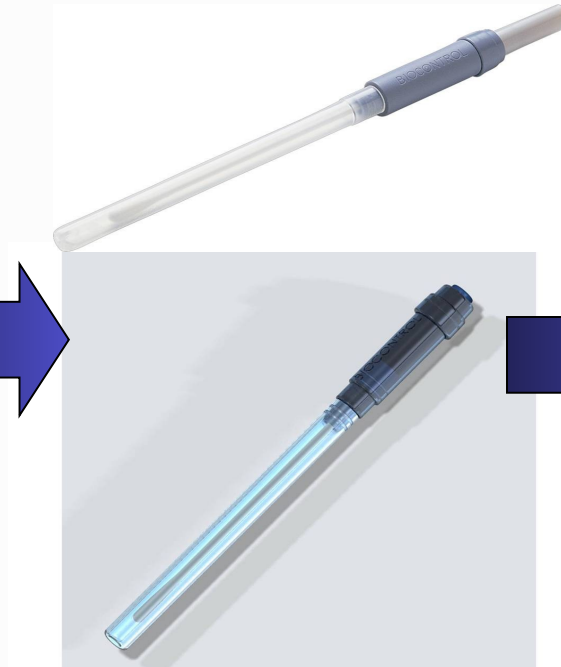
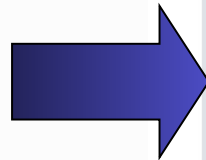
**Varful swab-lui este așezat deasupra zonei în care MVP-ul face citirea cantitativă. Acest lucru garantează că citirea se va face la soluția din interiorul tubului și nu de pe varful swab-ului. Obținând astfel rezultate precise.**

2. Nu este nevoie de agitare.  
Nu este important pe ce parte se pune swab-ul în aparat, mereu vom obține același rezultat.

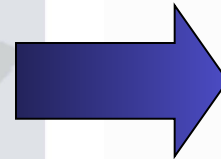
# LIGHTNING – Cum testam?



**1. Recoltare proba cu ajutorul Swab-ului**



**2. Activare swab**



**3. Introduceți swab-ul în instrument și citiți rezultatul**

BIOCONTROL

Results. Right now.



# Interpretare rezultate

## Ecranul Instrumentului

Read ATP:

Test Point: 01

Code: 10

*(name of the test point)*

Scroll < - - >

Fail

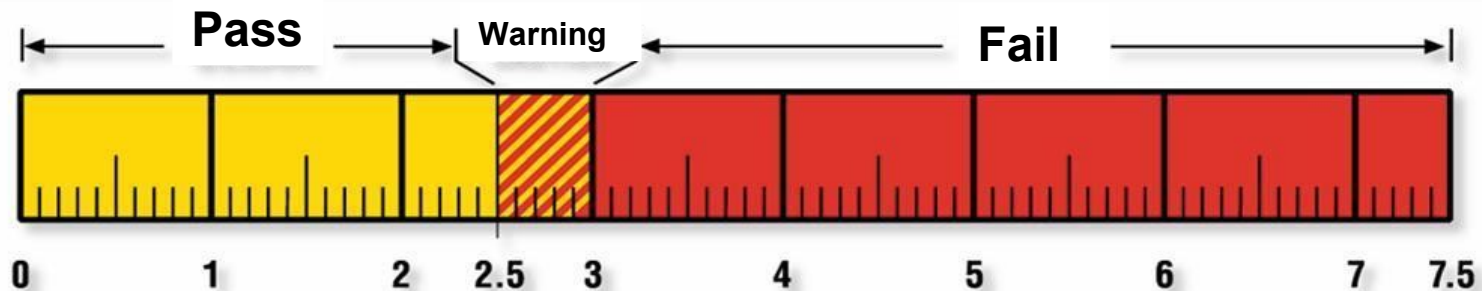
Zone 3.8

RLU 2500

2.5W

3.0 F

# De ce se foloseste pentru masuratori scala "Zones"?

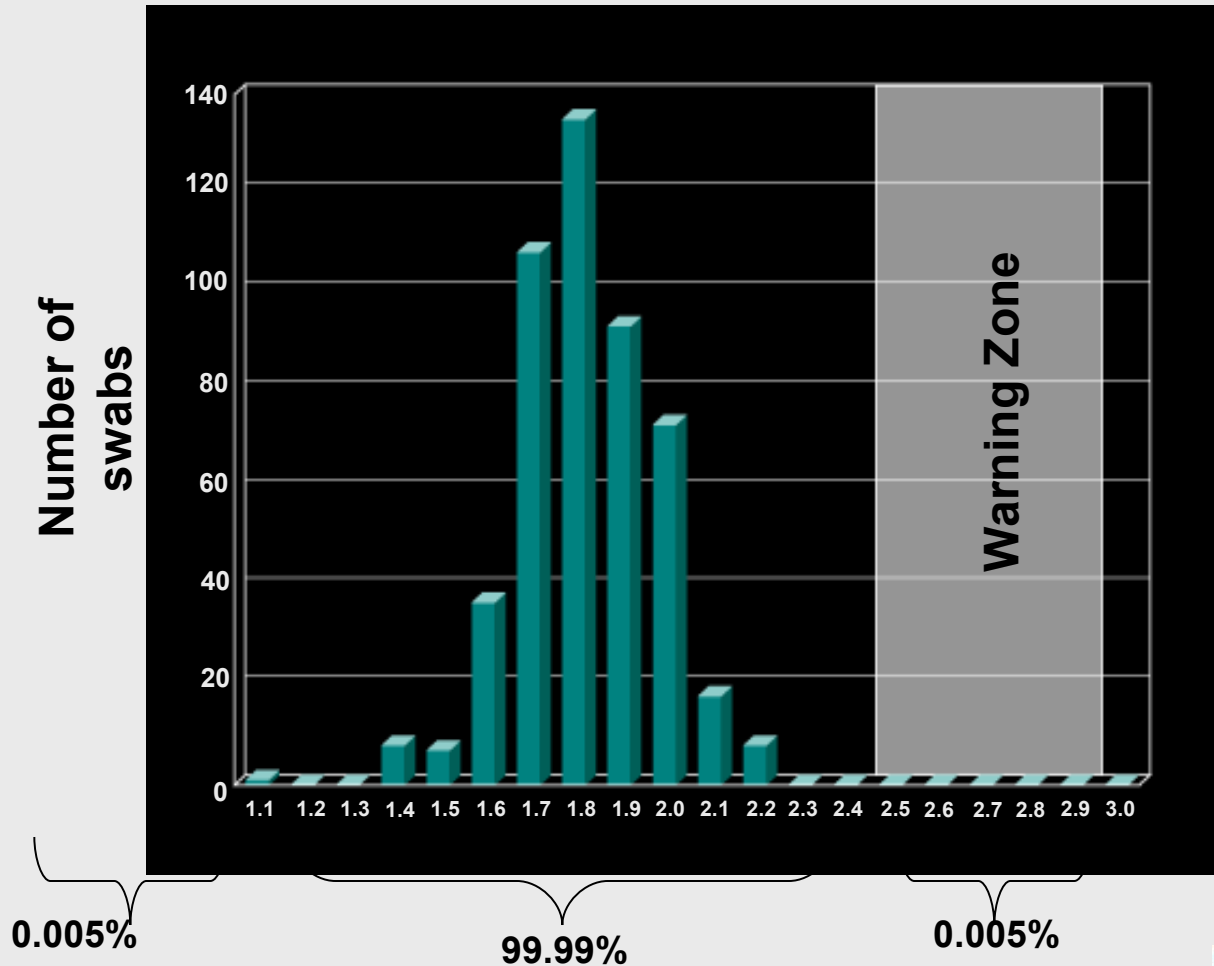


De ce limita de 2.5 ? Pentru ca producatorul a facut 30.000 teste si in 99,99% din cazuri rezultatul testelor a aratat 2.5.

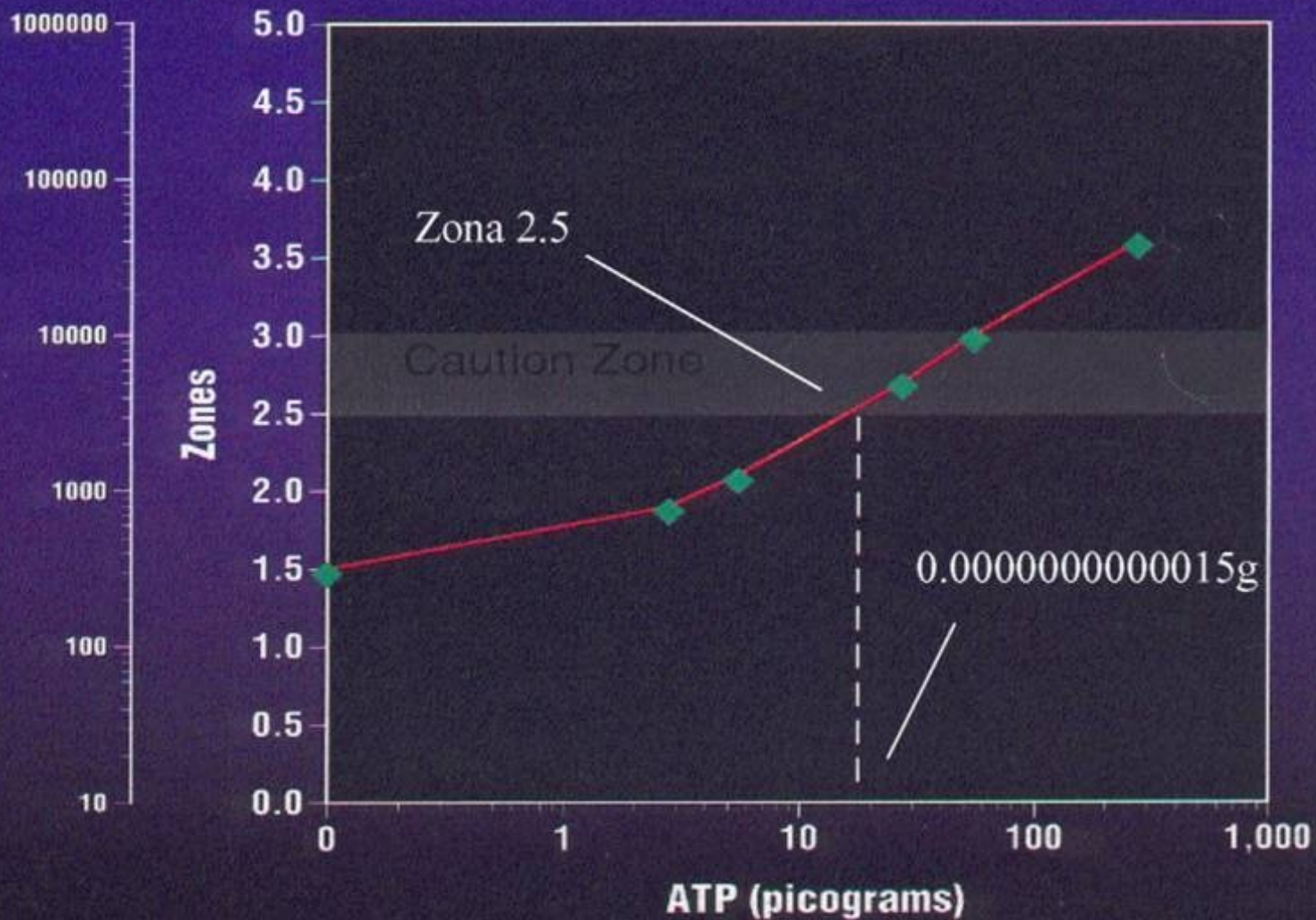
Acest lucru e un factor important deoarece ne ajuta sa economisim bani si timp, nefiind nevoie efectuarea de teste ulterioare pentru a determina limita de curatenie care deja a fost determinata de producator.

# De ce masuratori in Zone 2.5?

(Swab-uri Activate nedeschise) n = 490, avrg = 1.8, Std Deviation = 0.16



## ATP Sensitivity Curve



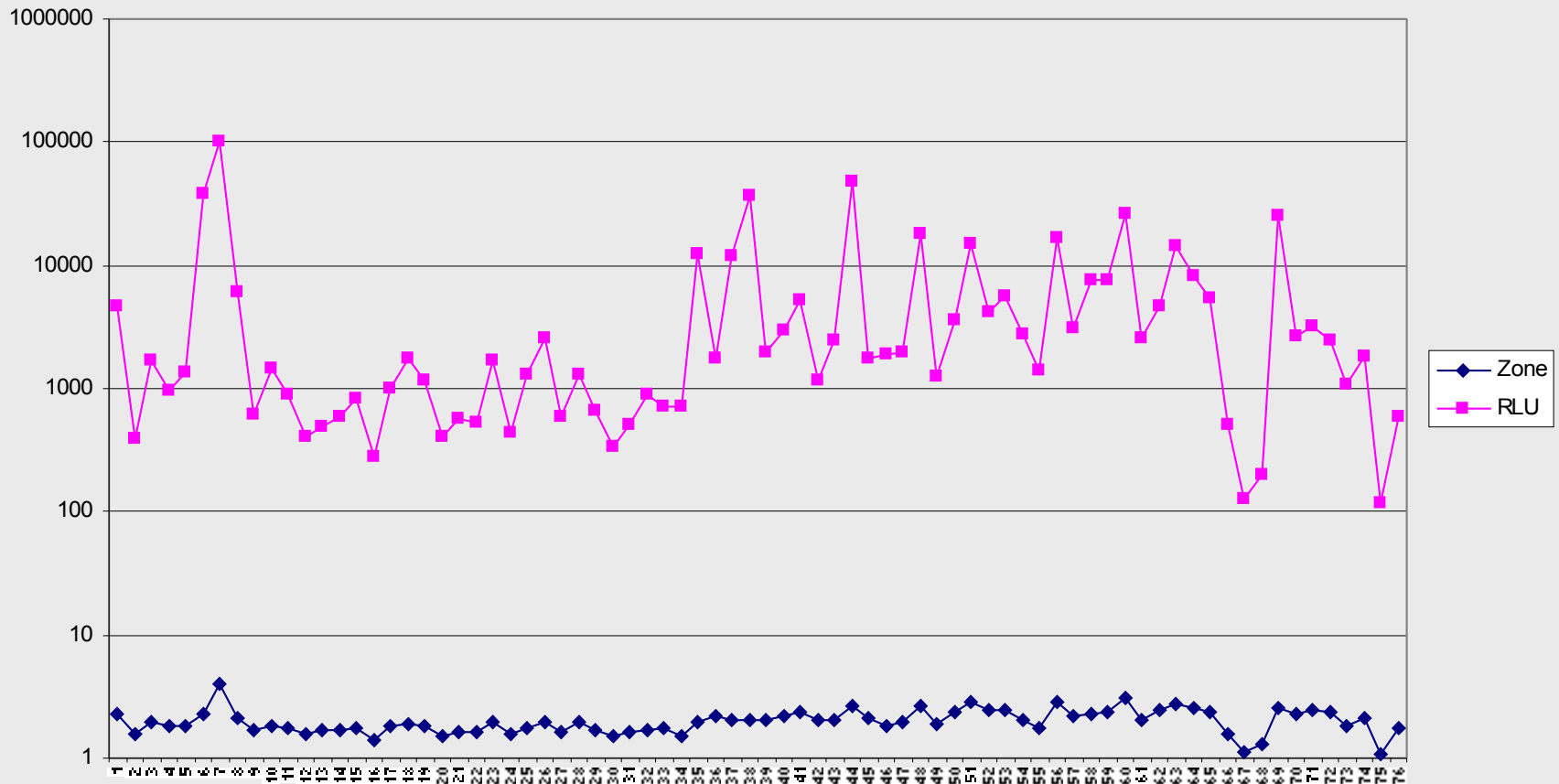
# De ce determinarea RLU nu este relevanta

- Rezultatele obtinute in RLU (relativ light unit) stabilesc numai nivelul de curatenie dar nu dau valoare zero ATP pe suprafete sau probe lichide.

<b>TYPICAL PRODUCT SURFACES</b>			
<b>PRODUCT SURFACE</b>	<b>PASS</b>	<b>CAUTION</b>	<b>FAIL</b>
<b>RAW MEAT</b>			
Abattoirs	<1000	1001-1999	>2000
Butchery	<500	501-999	>1000
<b>COOKED MEAT PRODUCTS (MEATS, PIES, PASTRY PRODUCTS)</b>			
Low Risk	<500	501-999	>1000
High Risk	<250	251-499	>500
<b>White Fish Production</b>	<300	301-599	>600
<b>SHELLFISH E.G. PRAWNS</b>	<1000	1001-1999	>2000
<b>CHEESE PRODUCTION</b>	<250	251-499	>500
<b>CONVENIENCE FOODS READY MEAL</b>			
High Risk	<300	301-599	>600
Low Risk	<500	501-999	>1000
<b>VEGETABLE/FRUIT PROCESSING</b>			
High Risk	<250	251-499	>500
Low Risk	<500	501-999	>1000
<b>BAKED DESSERTS/CAKES</b>			
Low Risk	<300	301-599	>600
High Risk	<200	201-399	>400

# Un alt motiv pentru care RLU nu determina daca "E curat"

## Variatia citirilor



# Controlul calitatii

- ➔ Positive Control sunt fiole cu ATP.
- ➔ Positive Control confirma faptul ca sistemul functioneaza corect.
- ➔ Important se utilizeaza 1 buc la un pachet de swaburi.

# Calibrarea LIGHTNING MVP

## Cerinta a Auditorilor...

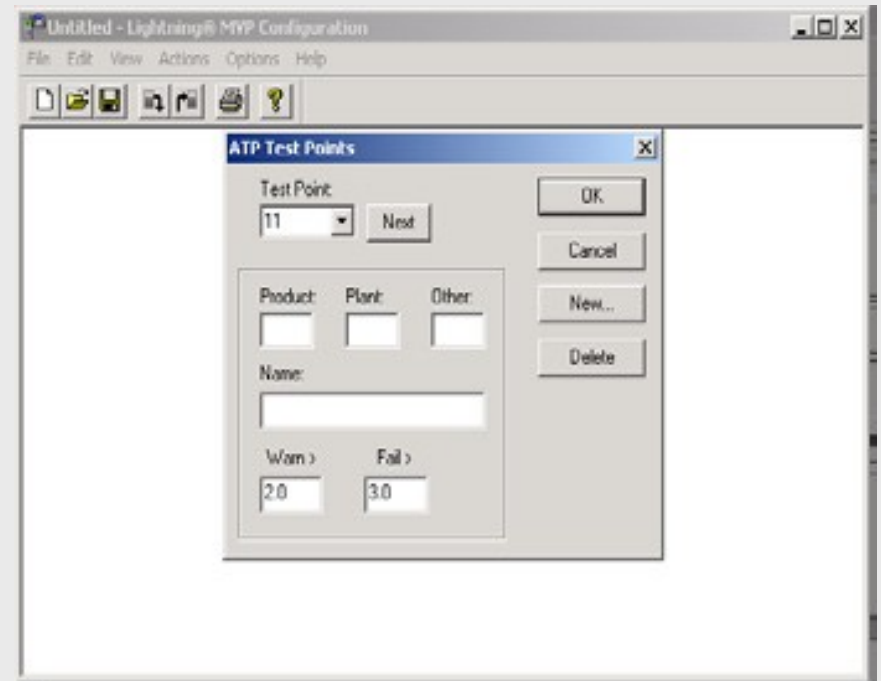
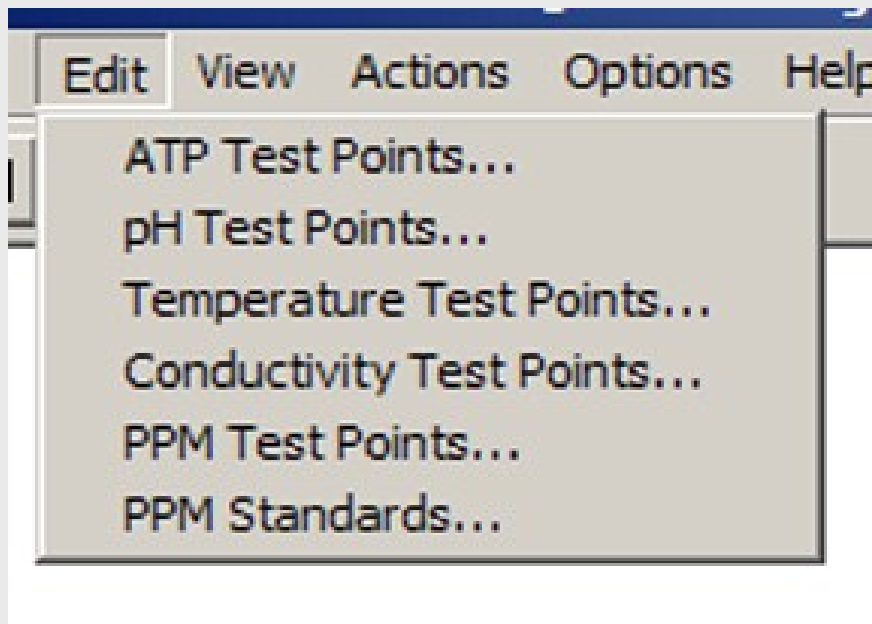
- Doua bari, una de acrilic si cealalta de otel inoxidabil.
- Utilizate in doua situatii:
  - 1) Cand utilizatorul vrea sa faca o verificare a instrumentului MVP.
  - 2) Cand instrumentul da valori neobisnuite.





# Configurarea Software MVP

## Config Test Points pentru ATP



Se selecteaza "test point" pentru ATP

Introduceti numele pentru "Tests points"

# Configurarea Conductivitatii...

## Introducerea datelor

The screenshot shows the 'PPM Standards' dialog box. It features a 'Select Standard' dropdown menu with '1' selected and a 'Next' button. Below this is a 'Name:' text box containing 'Ácido Peracetic' and a 'PPM:' text box containing '1000'. On the right side, there are four buttons: 'OK', 'Cancel', 'New...', and 'Delete'.

Definirea standardelor si a concentratiei.

The screenshot shows the 'PPM Test Points' dialog box. It is divided into two main sections. The left section, titled 'PPM Test Point 1', includes fields for 'Product:', 'Plant:', and 'Other:' (all empty), a 'Name:' text box with 'Tubulação', a 'Select Standard:' dropdown with '1' selected and a 'Next' button, a 'Standard Name:' text box with 'Acido peracetic', a 'Standard PPM:' text box with '1000', and two 'PPM Low Fail' and 'PPM High Fail' text boxes with values '900' and '5000' respectively. The right section, titled 'Temperature Test Point 1', includes 'Product:', 'Plant:', and 'Other:' fields (all empty), a 'Name:' text box with 'Detergente', and two 'Temp Low Fail' and 'Temp High Fail' text boxes with values '20' and '30'. Below these is the text 'Temperatures shown in degrees Celsius.' At the bottom right, there is a 'Select Test Point:' dropdown with '1' selected and a 'Next' button, and a 'Delete' button. At the very bottom of the dialog are 'OK' and 'Cancel' buttons.

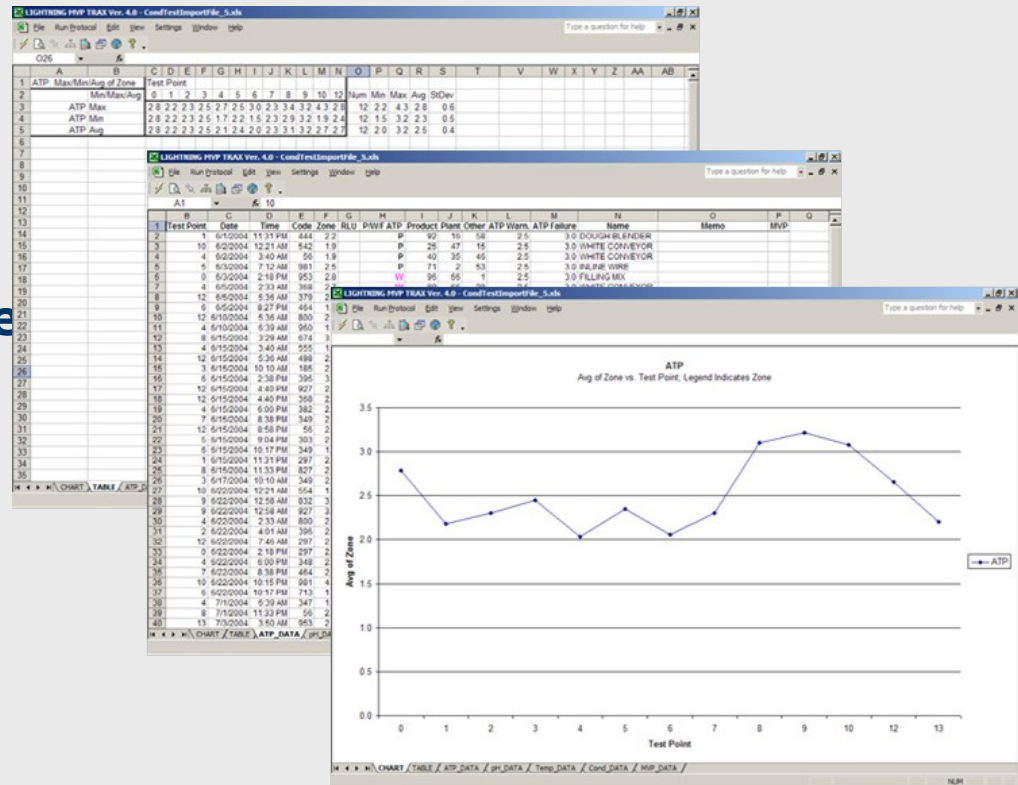
Definirea unde aceste puncte ar trebuie masurate in fabrica

# Transferul datelor via LIGHTNING TRAX

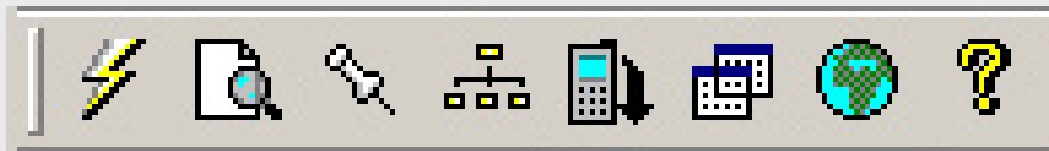
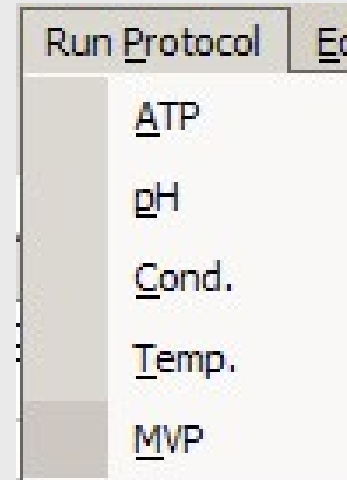
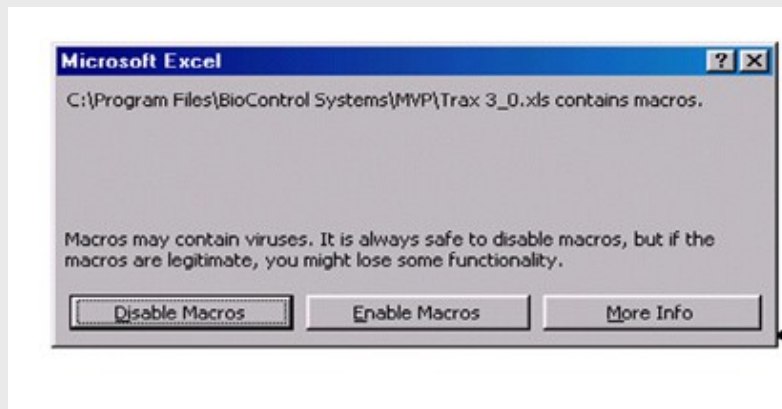
➔ Lightning MVP Trax ruleaza pe Microsoft Excel

➔ Datelor pot fi obtinute in formate:

- ✓ Excel spread sheet,
- ✓ Tabele statistice,
- ✓ harti.



# Utilizarea MVP TRAX



# LIGHTNING TRAX

**LIGHTNING MVP TRAX -- ATP PROTOCOL** [X]

Protocol Name:

Sort:  Test Point  
 Date  
 Time  
 Code  
 Zone  
 P/W/F ATP  
 Product  
 Plant  
 Other  
 ATP Warn.  
 ATP Failure  
 Name  
 MVP  
 RLU

Filter:

CHART/TABLE Sheets

X/Column:   
Y/Values:   
Lines/Row:

Y/Values as:

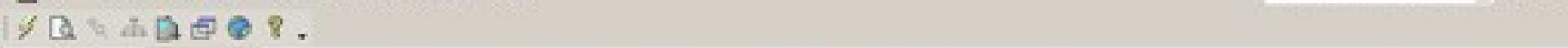
- Maximum
- Minimum
- Average
- Number
- Result

Dates as:

- Day
- Week
- Month
- Weekday

OK  
Cancel  
Save  
Delete

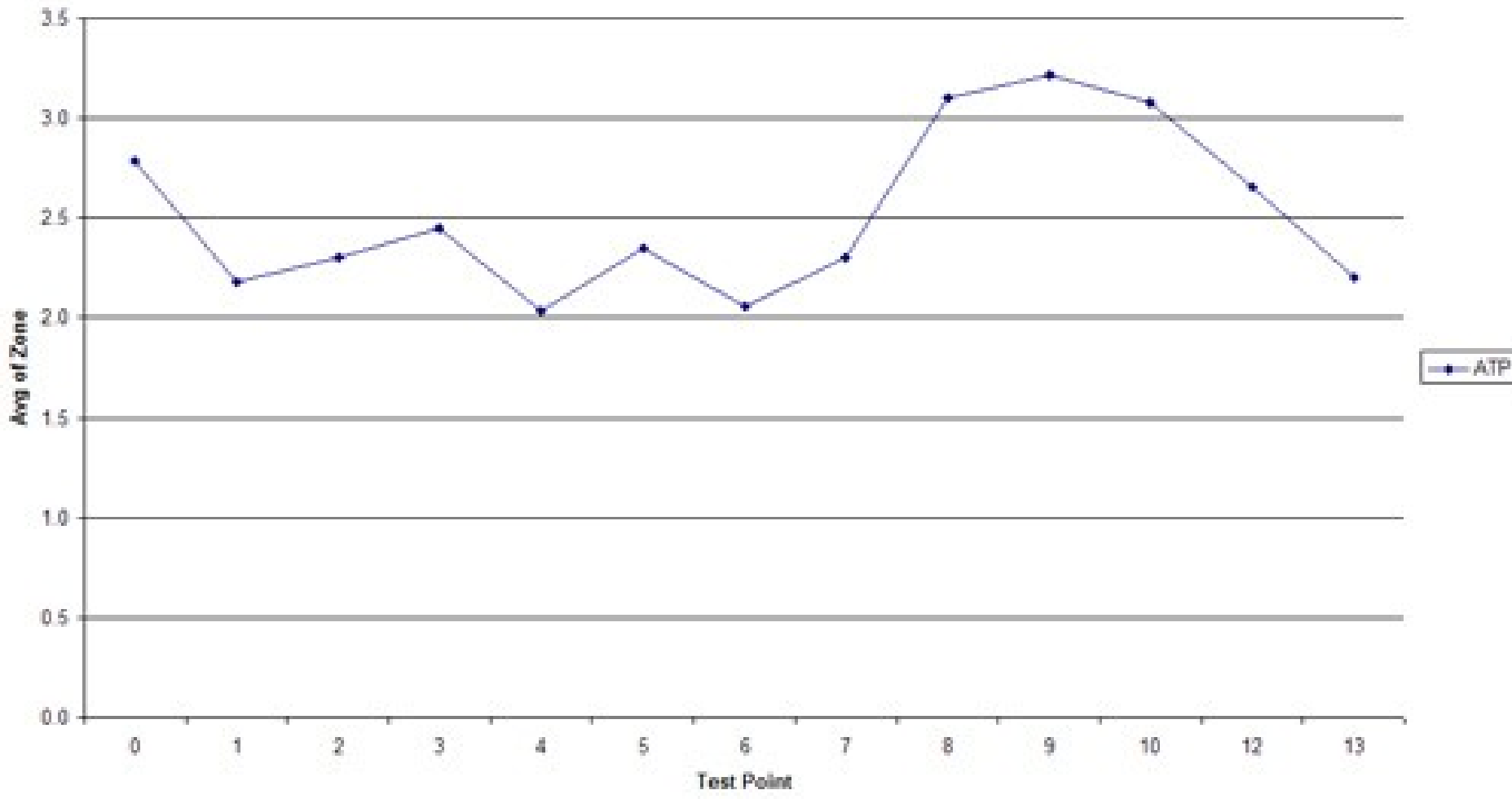
	A1		10															
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q		
1	Test Point	Date	Time	Code	Zone	RLU	P/W/F ATP	Product	Plant	Other	ATP Warn.	ATP Failure	Name	Memo	MVP			
2	1	6/1/2004	11:31 PM	444	2.2		P	92	16	58	2.5	3.0	DOUGH BLENDER					
3	10	6/2/2004	12:21 AM	542	1.9		P	25	47	15	2.5	3.0	WHITE CONVEYOR					
4	4	6/2/2004	3:40 AM	56	1.9		P	40	35	46	2.5	3.0	WHITE CONVEYOR					
5	5	6/3/2004	7:12 AM	981	2.5		P	71	2	53	2.5	3.0	INLINE WIRE					
6	0	6/3/2004	2:18 PM	953	2.8		W	96	66	1	2.5	3.0	FILLING MIX					
7	4	6/5/2004	2:33 AM	368	2.7		W	89	66	28	2.5	3.0	WHITE CONVEYOR					
8	12	6/5/2004	5:38 AM	379	2.7		W	26	90	45	2.5	3.0	GREY CONVEYOR					
9	6	6/5/2004	8:27 PM	464	1.5		P	79	6	6	2.5	3.0	METAL BELT					
10	12	6/10/2004	5:38 AM	800	2.7		W	65	51	33	2.5	3.0	GREY CONVEYOR					
11	4	6/10/2004	6:39 AM	950	1.7		P	5	25	71	2.5	3.0	WHITE CONVEYOR					
12	8	6/15/2004	3:29 AM	674	3.4		F	48	38	76	2.5	3.0	BATTER STAT 1					
13	4	6/15/2004	3:40 AM	555	1.9		P	27	21	22	2.5	3.0	WHITE CONVEYOR					
14	12	6/15/2004	5:36 AM	498	2.7		W	5	45	17	2.5	3.0	GREY CONVEYOR					
15	3	6/15/2004	10:10 AM	185	2.5		P	81	95	24	2.5	3.0	MISC - STROM					
16	6	6/15/2004	2:38 PM	396	3.0		W	21	97	49	2.5	3.0	METAL BELT					
17	12	6/15/2004	4:40 PM	927	2.8		W	58	86	20	2.5	3.0	GREY CONVEYOR					
18	12	6/15/2004	4:40 PM	368	2.8		W	25	2	24	2.5	3.0	GREY CONVEYOR					
19	4	6/15/2004	6:00 PM	382	2.0		P	4	28	79	2.5	3.0	WHITE CONVEYOR					
20	7	6/15/2004	8:38 PM	349	2.3		P	41	82	86	2.5	3.0	BRAADER #					
21	12	6/15/2004	8:58 PM	56	2.7		W	51	27	27	2.5	3.0	GREY CONVEYOR					
22	5	6/15/2004	9:04 PM	303	2.2		P	88	68	48	2.5	3.0	INLINE WIRE					
23	6	6/15/2004	10:17 PM	349	1.8		P	72	65	29	2.5	3.0	METAL BELT					
24	1	6/15/2004	11:31 PM	297	2.2		P	64	46	33	2.5	3.0	DOUGH BLENDER					
25	8	6/15/2004	11:33 PM	827	2.9		W	65	53	0	2.5	3.0	BATTER STAT 1					
26	3	6/17/2004	10:10 AM	349	2.5		P	65	87	15	2.5	3.0	MISC - STROM					
27	10	6/22/2004	12:21 AM	554	1.9		P	94	65	23	2.5	3.0	WHITE CONVEYOR					
28	9	6/22/2004	12:58 AM	832	3.2		F	75	45	78	2.5	3.0	SHREDDER					
29	9	6/22/2004	12:58 AM	927	3.2		F	71	25	29	2.5	3.0	SHREDDER					
30	4	6/22/2004	2:33 AM	800	2.7		W	2	27	19	2.5	3.0	WHITE CONVEYOR					
31	2	6/22/2004	4:01 AM	396	2.3		P	52	86	27	2.5	3.0	FILLING MIX B					
32	12	6/22/2004	7:46 AM	297	2.4		P	32	3	8	2.5	3.0	GREY CONVEYOR					
33	0	6/22/2004	2:18 PM	297	2.8		W	68	27	20	2.5	3.0	FILLING MIX					
34	4	6/22/2004	6:00 PM	348	2.0		P	69	3	31	2.5	3.0	WHITE CONVEYOR					
35	7	6/22/2004	8:38 PM	464	2.3		P	65	0	24	2.5	3.0	BRAADER #					
36	10	6/22/2004	10:15 PM	981	4.3		F	3	97	26	2.5	3.0	WHITE CONVEYOR					
37	6	6/22/2004	10:17 PM	713	1.8		P	41	64	16	2.5	3.0	METAL BELT					
38	4	7/1/2004	6:39 AM	347	1.7		P	67	52	32	2.5	3.0	WHITE CONVEYOR					
39	8	7/1/2004	11:33 PM	56	2.9		W	27	1	14	2.5	3.0	BATTER STAT 1					
40	13	7/3/2004	3:50 AM	953	2.2		P	5	68	25	2.5	3.0	COLLECTION TRAY					



O26 A

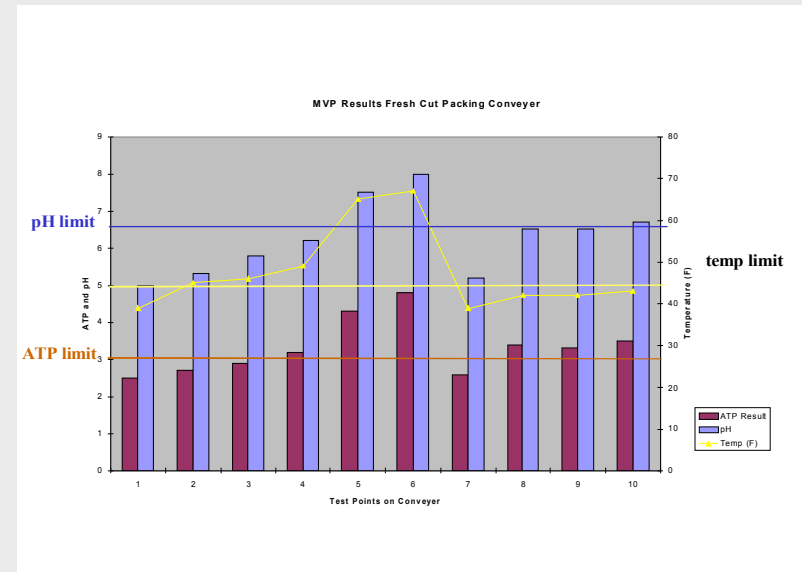
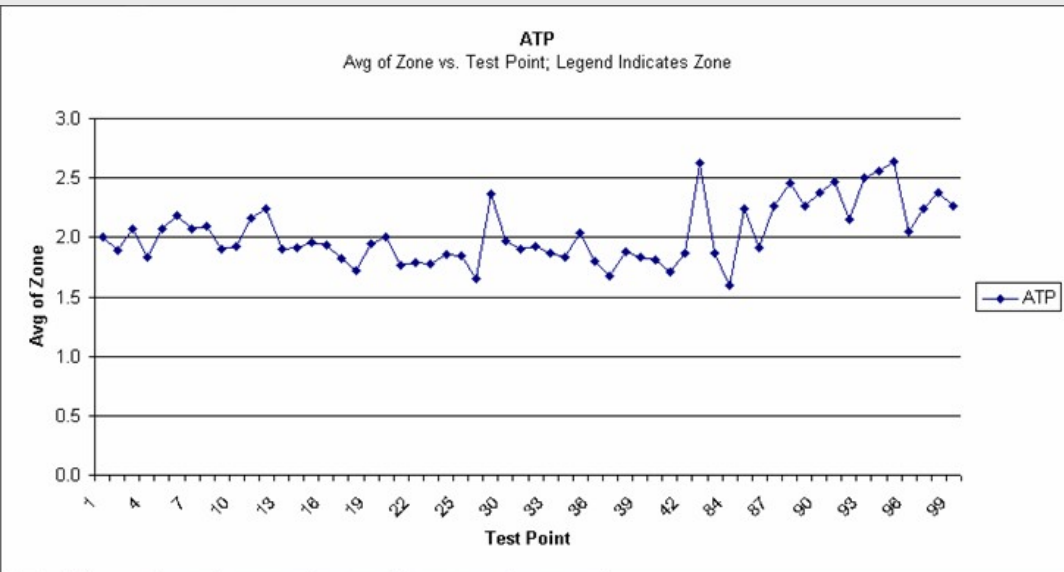
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	V	W	X	Y	Z	AA	AB		
1	ATP: Max/Min/Avg of Zone		Test Point																										
2		Min/Max/Avg	0	1	2	3	4	5	6	7	8	9	10	12	Num	Min	Max	Avg	StDev										
3		ATP Max	28	22	23	25	27	25	30	23	34	32	43	28	12	22	43	28	0.6										
4		ATP Min	28	22	23	25	1.7	2.2	1.5	2.3	2.9	3.2	1.9	2.4	12	1.5	3.2	2.3	0.5										
5		ATP Avg	28	22	23	25	2.1	2.4	2.0	2.3	3.1	3.2	2.7	2.7	12	2.0	3.2	2.5	0.4										
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**ATP**  
 Avg of Zone vs. Test Point: Legend Indicates Zone

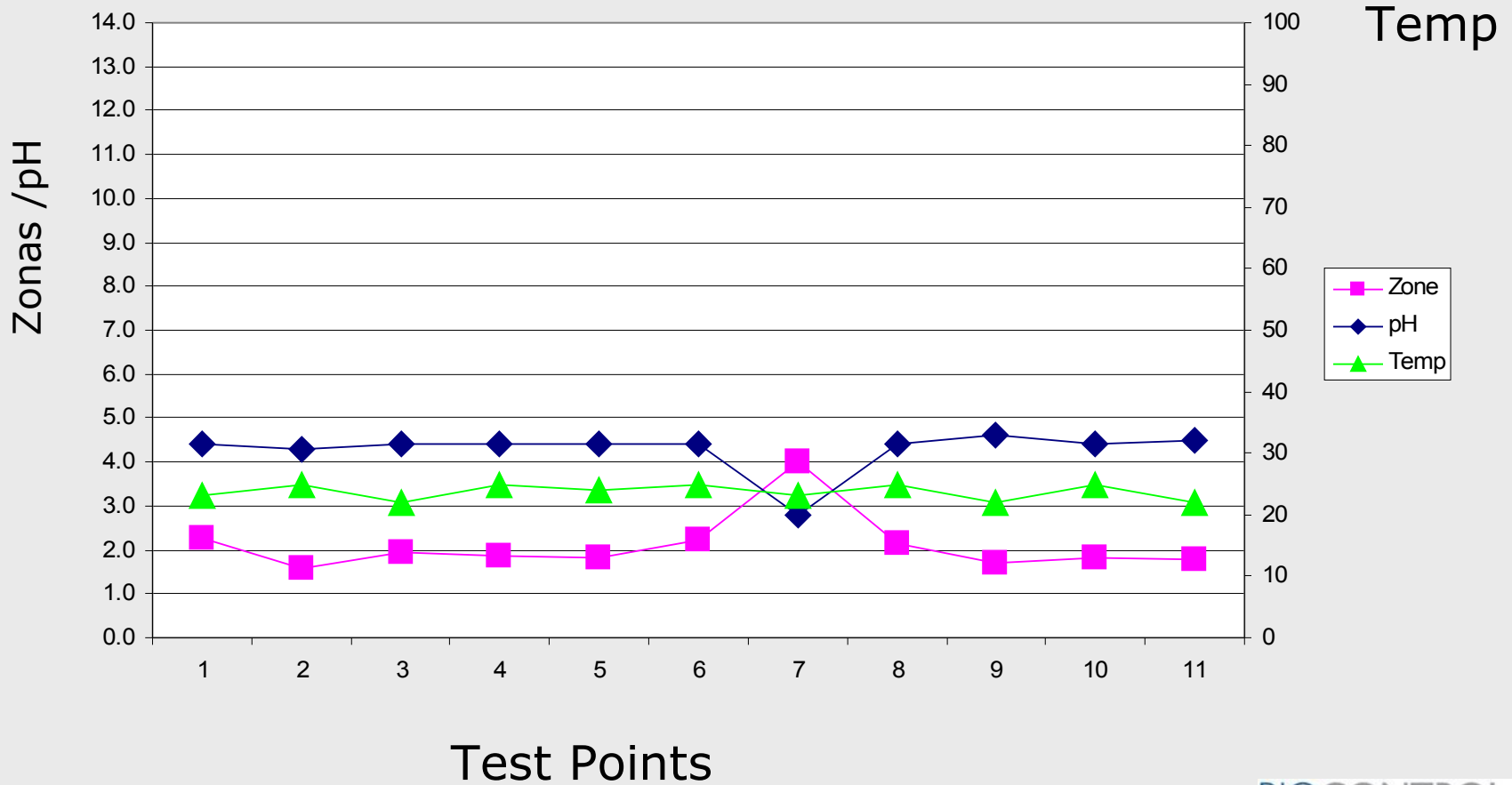




# With LIGHTNING TRAX we may combine the data in the same chart



# LIGHTNING TRAX



# Beneficile LIGHTNING

- ➔ **Sistemul permite luarea de actiunii corective in timp real**
- ➔ **Instrument de formare**
- ➔ **Instrument motivational care genereaza o concurenta sanatoasa intre angajati.**
- ➔ **Un instrument util in cazul auditurilor de control, este un suport pentru sistemele SSOPs si GMPs.**
- ➔ **Se economisesc bani prin pregatirea solutiilor perfecte pentru curateie.**