DESIGN YOUR EXPERIMENT BY MEANS OF A CENTRAL COMPOSITE DESIGN

CCD TEMPLATE FOR 3 VARIABLES AT 5 LEVELS:

		A	B	C
Cube points	1	-1	-1	-1
	2	-1	-1	+1
	3	-1	+1	-1
	4	-1	+1	+1
	5	+1	-1	-1
	6	+1	-1	+1
	7	+1	+1	-1
	8	+1	+1	+1
Central point	9	0	0	0
Star points	10	0	0	-2
	11	0	0	+2
	12	0	-2	0
	13	0	+2	0
	14	-2	0	0
	15	+2	0	0
Central points	16	0	0	0
	17	0	0	0

EXAMPLE: FOOD SURFACE DECONTAMINATION

Objective of the experiment: Development of a biopreserving solution for food surface decontamination

Microbiological target: *Listeria monocytogenes*

Growth phase: stationary (sub-cultured twice)

Level of inoculum: 50 CFU/cm^2

Inoculation area: surface of finished product

Independent variables:

NaCl (g/100 mL): 0, 0.50, 1.00, 1.50, 2.00

pH: 7.0, 6.5, 6.0, 5.5, 5.0

Myrtle extract (ME) (mL/100 mL): 0.039, 0.78, 0.117, 0,156, 0.195

RUN	NaCl (g/100 mL)	pH	ME (mL/100 mL)
1	1.50	6.50	0.156
2	0.50	6.50	0.156
3	1.50	6.50	0.078
4	0.50	6.50	0.078
5	1.50	5.50	0.156
6	0.50	5.50	0.156
7	1.50	5.50	0.078
8	0.50	5.50	0.078
9	1.00	6.00	0.117
10	1.00	7.00	0.117
11	1.00	5.00	0.117
12	1.00	6.00	0.195
13	1.00	6.00	0.039
14	2.00	6.00	0.117
15	0.00	6.00	0.117
16	1.00	6.00	0.117
17	1.00	6.00	0.117

YOUR PRODUCT: FETA CHEESE

Objective of the experiment:

Microbiological target:

Growth phase:

Level of inoculum:

Inoculation area:

Independent variables: