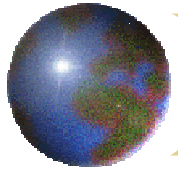


Example pears in consumer packages

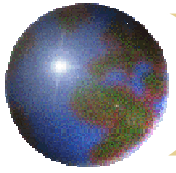
- A lot with pears in consumer packages contain
 - 200 boxes, sender, variety and size are the same
 - 20 packages each box
 - 4 pears in each package

- How to select a sample?



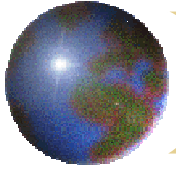
Answer

- You select 7 boxes from various parts of the lot
- You select and check 5 consumer packages from each box.
- What to check?



Control method

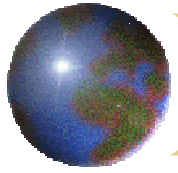
Work box by box and check the 5 packages you have selected.



Total number of fruits

1. Open the 5 packages and take out the pears. Count the total number of pears in the 5 selected packages.

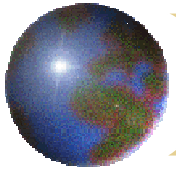
Note the number in the table (in this case 20).



Check minimum requirements

2. Put aside, and count, pears not meeting minimum requirements.

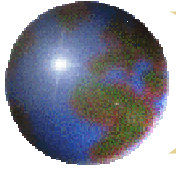
Note the number in the table.



Check category requirements

3. Put aside, and count, pears not meeting the requirements of the Category separately.

Note the number in the table.



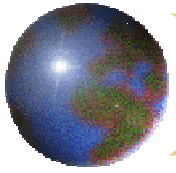
Calculate non-conformity rate

4. After counting all selected boxes, calculate the non-conformity rate for 2 (minimum requirements and for (2+3) (requirements of the Category).

The tolerance for not meeting the minimum requirements (2) is 1 % in Cat I (0.5 % in Category Extra and 2 % in Cat II).

The tolerance for not meeting the requirements of the Category (2+3) is 10 % in Category I and II, 5 % in Category Extra.

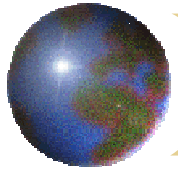
Put all the pears back in one heap again.



Check size requirements and calculate non-conformity rate

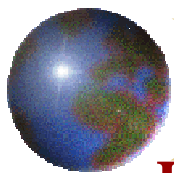
5. Count the number of pears not fulfilling the minimum size or sizing requirements. Note the number in the table.

The tolerance for not meeting minimum size and sizing requirements is 10 % in all categories.



Number or weight

6. The tolerance may refer to number of products or weight as stated in each standard.



Example with 7 boxes of pears in consumer packages, 5 consumer packages selected from each box, Category I

NC= Non-conformities

Box	No of fruits in sample	Number of NC – Min req.	NC Min req. in percent	Number of NC – Class req	NC Class req in percent	Number of NC- size	NC size, in percent	OK or not OK
1	20			1		1		
2	20	1		2		0		
3	20			0		1		
4	20	1		3		0		
5	20			1		0		
6	20			0		2		
7	20	1		1		0		
Total	140	3	2.1 %	8	5.7 %	4	2.9 %	NOT OK
Min req. + Cat		x	x	x	7.8 %	x	x	

Calculations



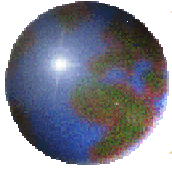
You have selected packages with a total of 140 pears

Minimum req.:

3 bad pears = 0,021 0,009x 100 = 2,1 %

140 pears

Tolerance in Category I is 1 % so in this respect the lot is NOT OK.



Category:

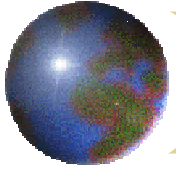
$$\underline{8 \text{ bad pears}} = 0,057 \quad 0.057 \times 100 = 5.7 \%$$

140 pears

Tolerance in Category I is 10 % but pears not meeting the minimum requirements shall also be included.

In this case non-conformity rate is 2.1 % + 5.7 % = 4.2 %.

In this respect the lot is OK.



Sizing:

$$\frac{4 \text{ small pears}}{140} = 0,029 \quad 0.029 \times 100 = 2.9 \%$$

140

Tolerance in Category I is 10 %, so in this respect the lot is OK.