Annex nr. 2

"Information Technology and Cyber Security Service" P.I.

Public Bidding Procurement of printed ear tags

Technical Specifications

Name of the goods	Minimal functional parameters of the equipment	Requeste printed range	Quantity
Printed ear tags: 1) Sheeps 2) Goats 3) Swine	According to "TECHNICAL REQUIREMENTS"	MD 1002766442 – 1002816441 MD 2000603863 – 2000653862 MD 3004699587 - 3005199586	50 000 50 000 500 000
Total			600 000

TECHNICAL REQUIREMENTS

for printed ear tags for sheep, goats and swine

CHAPTER I

Technical Requirements for Sheep Ear Tags

1. General technical requirements

- **1.1**. Ear tags shall be made of polyurethane or any other plastic material.
- **1.2**. The ear tag shall be applied in a position where it is easily visible from a distance.

2. The shape and appearance of ear tags

2.1. Color: Yellow;

- **2.2.** The ear tags will be printed according to the model in Fig. 2 of the chapter, observing the range indicated in the technical specifications table.
- **2.3.** Ear tags must meet the following conditions:
 - a) be composed of two parts, namely the "father" and the "mother" parts;
 - b) the "father" part must have a penetration pin;
 - c) the penetration pin must be made of a hard material, possibly metal to allow a better and easier penetration of the ear, the other parts being of softer material;
 - d) the taper pin must allow ventilation and aeration;
 - e) the penetration pin must be at least two cutting grooves;
 - f) the trimming made by cutting must be greater than the penetration pin so that the ear tag applied to the ear can rotate freely around the axis;
 - g) the junction channel from the "mother" must be of the "open" type;
 - h) the model of the ear tag must be designed in such a way that it can be inserted only in a specific position in the applier-clamp;
 - i) the margins and the corners of identification means must be rounded in order not to cause damage to the body.

3. The size of the ear tag

- **3.1.** The ear tags shall have the minimum dimensions specified in Figure 1 (Scheme for ear tags for sheep).
- **3.2**. The ear tags connection between the two parts must ensure a distance of 11 mm between the two parts.
- **3.3**. The "mother" and the "father" parts should necessarily be the same size and must comply with the technical requirements presented in Figure 1.

4. Technical performance requirements

The ear tags shall meet the following requirements:

- a) to be easily applicable, without requiring a special skill;
- b) to be designed in such a way that it can be inserted only in a specific position in the applicator's clippers;
- c) possibility to be applied only once, observing the specifications listed in this Annex.
- d) provide a good and fast healing of the ear; (healing period test certificate)
- e) the ear tag application should be performed by incision of the pin (at the time of ear tag application), and not by pressure, so that the skin is cut and not pressed into the "mother" ear tag.

5. Ear tag's resistance to traction

- **5.1.** The means of connection between the two parts of an ear tag must withstand a 300 N thrust, measured axially, a feature which must be maintained for at least 7 (seven) years from joining.
- **5.2.** After application, the two parts of each ear tag must be separated only by permanently damaging the means of connection between them, without being able to reassemble the parts, so that it can be applied only once.

6. Ear tag's resistance to temperatures

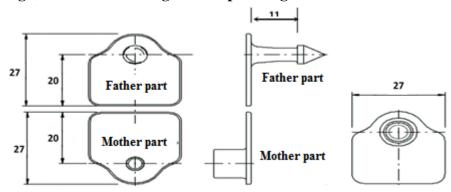
The plastic material of which the ear tag is made:

- a) must be resistant to a temperature of between -30 C and +60°C and the influence of normal ultraviolet rays;
- b) must not be brittle at temperatures below 0°C;
- c) must not be torn or broken, hard to be damaged;
- d) must be flexible, durable;
- e) must be innocuous;
- f) must comply with laws and regulations relating to recycling;
- g) must not be reusable;
- h) must not adversely affect the healing process of injuries produced upon application.

7. Ear tags' resistance to abrasion

It shall not be possible to remove any imprints on the ear tag, by washing with water or solvents or by wiping with sandpaper for a period of at least seven (7) years from delivery.

Fig.1 Technical drawing for sheep ear tags



Note: all sizes are shown in (mm).

Fig.2 Sheep Ear tag sample

Mother part





CHAPTER II Technical Requirements for Goats Printed Ear Tags

8. General technical requirements

- **8.1.** The ear tags shall be made of polyurethane or any other plastic material.
- **8.2.** The ear tag shall be applied in a position where it is easily visible from a distance.

9. The shape and appearance of ear tags

9.1. Color: White;

- **9.2.** The ear tags will be printed according to the model in Fig. 4 of the chapter, observing the range indicated in the technical specifications table.
- **9.3.** Ear tags must meet the following conditions:
 - a) be composed of two parts, namely the "father" and the "mother" parts;
 - b) the "father" part must have a penetration pin;
 - c) the penetration pin must be made of a hard material, possibly metal to allow a better and easier penetration of the ear, the other parts being of softer material;
 - d) the taper pin must allow ventilation and aeration;
 - e) the penetration pin must be at least two cutting grooves;
 - f) the trimming made by cutting must be greater than the penetration pin so that the ear tag applied to the ear can rotate freely around the axis;
 - g) the junction channel from the "mother" must be of the "open" type;
 - j) the model of the ear tag must be designed in such a way that it can be inserted only in a specific position in the applier-clamp;
 - h) the margins and the corners of identification means must be rounded in order not to cause injury to the body.

10. The size of the printed ear tag

- **10.1.** The ear tags shall have the minimum dimensions specified in Figure 3 (technical drawing for goats' ear tags).
- **10.2.** The ear tags connection between the two parts must ensure a distance of 11 mm
- **10.3.** The "mother" and the "father" parts should not necessarily be the same size, but must comply with the technical requirements presented in Figure 3.

11. Technical performance requirements

The ear tags shall meet the following requirements:

- a. to be easily applicable, without requiring a special skill;
- b. to be designed in such a way that it can be inserted only in a specific position in the applicator's clippers;
- c. possibility to be applied only once, observing the specifications listed in this section;
- d. provide a good and fast healing of the ear;
- e. the ear tag application should be performed by incision of the pin (at the time of ear tag application), and not by pressure, so that the skin is cut and not pressed into the "mother" ear tag.

12. Ear tag's resistance to traction

12.1. The means of connection between the two parts of an ear tag must withstand a 300 N thrust, measured axially, a feature which must be maintained for at least 7 (seven) years from joining.

12.2. After application, the two parts of each ear tag must be separated only by permanently damaging the means of connection between them, without being able to reassemble the parts, so that it can be applied only once.

13. Ear tag's resistance to temperatures

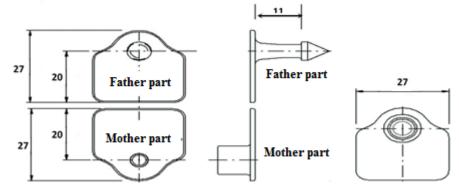
The plastic material of which the ear tag is made

- a) must be resistant to a temperature of between -30 C and +60°C and the influence of normal ultraviolet rays;
- b) must not be brittle at temperatures below 0°C;
- c) must not be torn or broken, hard to be damaged;
- d) must be flexible, durable;
- e) must be innocuous;
- f) must comply with laws and regulations relating to recycling;
- g) must not be reusable;
- h) must not adversely affect the healing process of injuries produced upon application

14. Ear tags' resistance to abrasion

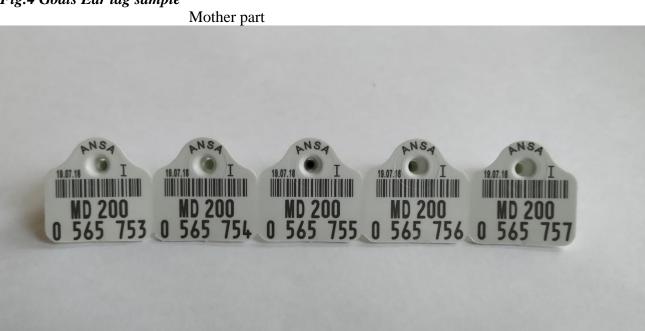
It shall not be possible to remove any imprints on the ear tag, by washing with water or solvents or by wiping with sandpaper for a period of at least seven (7) years from delivery.

Fig.3 Technical drawing for goats', sheep ear tags



Note: The size of ear tags, specified in this section is the minimum size requested.

Fig.4 Goats Ear tag sample



Father Part



CHAPTER III

Technical Requirements for Swine Printed Ear Tags

15. General Technical Requirements

- **15.1.** The ear tags shall be made of polyurethane or any other plastic material.
- 15.2. The ear tag shall be applied in a position where it is easily visible from a distance

16. The shape and appearance of ear tags

16.1. Color: Yellow;

- **16.2.** The ear tags will be printed according to the model in Fig. 6 of the chapter, observing the range indicated in the technical specifications table.
- **16.3.** Ear tags must meet the following conditions:
 - a. be composed of two parts, namely the "father" and the "mother" parts;
 - b. the "father" part must have a penetration pin;
 - c. the penetration pin must be made of a hard material, possibly metal to allow a better and easier penetration of the ear, the other parts being of softer material;
 - d. the taper pin must allow ventilation and aeration;
 - e. the penetration pin must be at least two cutting grooves;
 - f. the trimming made by cutting must be greater than the penetration pin so that the ear tag applied to the ear can rotate freely around the axis;
 - g. the junction channel from the "mother" must be of the "open" type;
 - h. the model of the ear tag must be;
 - i. the margins and the corners of identification means must be rounded in order not to cause injury to the body.

17. The size of the ear tag

- **17.1.** The ear tags shall have the minimum dimensions specified in Figure 5 (technical drawing for swine ear tags).
- 17.2. The ear tag connection between the two parts must ensure a distance of 11 mm
- **17.3.** The "mother" and the "father" parts should not necessarily be the same size, but must comply with the technical requirements presented in Figure 5.

18. Technical performance requirements

The ear tags shall meet the following requirements:

- a) to be easily applicable, without requiring a special skill;
- b) to be designed in such a way that it can be inserted only in a specific position in the applicator's clippers;
- c) possibility to be applied only once, observing the specifications listed in this section.
- d) provide a good and fast healing of the ear (healing period test certificate);
- e) the ear tag application should be performed by incision of the pin (at the time of ear tag application), and not by pressure, so that the skin is cut and not pressed into the "mother" ear tag.

19. Ear tag's resistance to traction

- **19.1.** The means of connection between the two parts of an ear tag must withstand a 300 N thrust, measured axially, a feature which must be maintained for at least 7 (seven) years from joining.
- **19.2.** After application, the two parts of each ear tag must be separated only by permanently damaging the means of connection between them, without being able to reassemble the parts, so that it can be applied only once.

20. Ear tag's resistance to temperatures

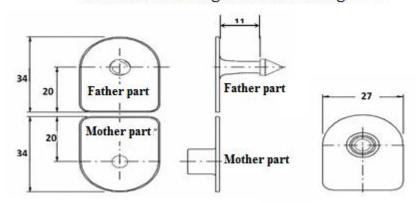
- a) the plastic material of which the ear tag is made must be resistant to a temperature of between -30 C and +60°C and the influence of normal ultraviolet rays;
- b) must not be brittle at temperatures below 0°C;
- c) must not be torn or broken, hard to be damaged;
- d) must be flexible, durable;
- e) must be innocuous;
- f) must comply with laws and regulations relating to recycling;
- g) must not be reusable;
- h) must not adversely affect the healing process of injuries produced upon application.

21. Ear tags' resistance to abrasion

It shall not be possible to remove any imprints on the ear tag, by washing with water or solvents or by wiping with sandpaper for a period of at least seven (7) years from delivery.

Fig.5 Technical drawing for swine ear tags

Technical drawing for swine ear tags (mm)



Note: The size of ear tags, specified in this section is the minimum size requested

Fig.6 Swine Ear tag sample

Mother part



Father Part

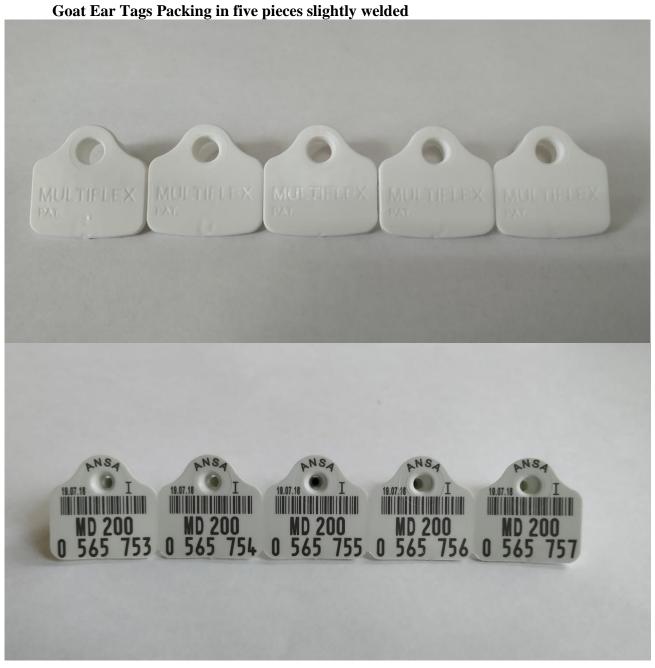


CHAPTER IV Technical Requirements for Printed Ear Tags Packing

22. Sheep Ear Tags packing: boxed 1000 pcs. ("mother" and "father" separated and prepackaged in 50 pieces)

Sheep Ear Tags Packing in five pieces slightly welded

23. Goats Ear tags packing: boxed 1000 pcs. (mother and father separated and pre-packaged in 50 pieces)



24. Swine Ear Tags packing: boxed 1000 pcs. (mother and father separated and pre-packaged in 50 pieces)

Swine Ear Tags Packing in five pieces slightly welded



The offer will be accompanied by the specimen (s) of the printed ear tags for each species.

CHAPTER V

Additional requirements for all types of ear tags

25. Compatibility of ear tags with the application equipment held by the beneficiary

25.1 The ear tags shall be compatible with the universal ear tag applicator multiflex (Fig.7). The Bidders have to confirm the compatibility of identification means offered (apart from transponders) with the universal ear tag applicator multiflex (Fig.7) by a trial report issued by an internationally accredited certification body.

25.2 The test report will confirm that application of the offered ear tags with such applicator will not affect the integrity of the ear tag (deformations, deviations from the drawing and the "Technical requirements" ultimately does not affect animal welfare (compression of ear tissue, necrosis etc.).

Fig. 7
Universal applicator for ear tags MultiFlex



TECHNICAL REQUIREMENTS are compulsory conditions for the Bidder and are included in the evaluation criteria of the Bidding.