

Agentia Nationala pentru Siguranta Alimentelor

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Republic of Moldova

7th August, 2020**Ref.: Vaccination of foxes against rabies Spring 2020 campaign**

Dear Sirs,

We have thoroughly performed the analysis of the distribution data of Moldova Spring 2020 anti-rabies vaccination campaign, that you have provided to us, with respect to your information on distribution of vaccine baits in urban and water areas.

We understand, that according to your analysis, approximately 34 000 doses were distributed in urban or water areas. Based on this information and data provided, we have run our analysis and wish to inform you about its results. We would also like to point out that during each analysis, the following factors, influencing its result and especially localisation of individual bait in a map, need to be taken into consideration.

1. GPS receivers

Depending on the current situation GPS receiver can give deviation of the location especially when projected into the map. Navigational GPS device and recording GPS device used on machines that drop the vaccine are two independent GPS systems and each of them is working with different satellites. This can lead to deviation between flown line and position of each distributed bait showed in maps based on data from the dropping machine.

2. Map differences

There are differences among individual maps from different providers. From our experience we know, that depending on which map one uses (Garmin BaseCamp with World Map v.4, OpenStreetMap, Google Earth or other), there may be a difference in boundaries of urban or water areas or even national borders among maps from different providers. This again may cause difference in precise localisation of the bait when comparing reality of dropped baits with a map during post vaccination analysis.

In general, flights have been performed in good visibility conditions, however in some cases low clouds and visibility occurred making it harder for the crews to distinguish between lonely house or houses and smaller village. In such places, distribution has been performed strictly

on GPS map information. Again, difference between the real boundaries and map boundaries may differ, causing distribution in the urban or water areas.

3. Visual control

Vaccination process is mainly visual and pilots can see in real time urban places (buildings, roads), water areas (depending on season as some water areas shown in the map can be without water in reality), people on the field (including farm animals) and even border marks. However, when flying high speed in a low altitude over the ground sometimes it is difficult to distinguish when village or town ends and where it starts again. This is also a factor that could lead to a distribution of a bait on the edge of urban area.

There are also a lot of green areas (parks, fields, meadows, small group of trees etc.) close to or within the boundaries of the urban areas that the vaccine has been distributed to. We believe that dropping baits into such area is not a harm. On contrary, these are areas where animals that can transfer rabies are very often gathering and come to close proximity of humans.

We want to stress that our air crews are experienced and well trained and in no way they have intentionally distributed the vaccine in illicit areas.

Nevertheless, considering the above factors and variables, we found several cases of vaccines that could be considered as dropped in cities or water areas including the green areas mentioned above. The baits can be found in urban areas (please see the enclosed table) and water areas (again, please see the enclosed table) too. To calculate the exact number of vaccines dropped in urban areas is extremely difficult due to the reasons mentioned above. However, after manual counting, we believe that approximately 22 152 baits of the vaccine have been dropped in or very close to urban or water areas.

We want to emphasize again that our air crews are experienced and responsible when performing the distribution of the vaccines and they are in no way intentionally distributing the baits in excluded areas. If there are cases of baits in those areas, they are a result of variable factors or coincidence but in no way of intention.

We can also assure you that we will take necessary actions to improve the precision of distribution in the Autumn 2020 campaign. Our association is also ready to supply and distribute 22 152 vaccine baits in the Autumn 2020 campaign.

Yours faithfully,

Marek Vystavěl
Bioveta, a.s.

