MINISTER
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REPUBLIC OF SOUTH AFRICA

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Honourable M.R Semenya (MP)
Chairperson
Portfolio Committee on Agriculture, Forestry and Fisheries
PO Box 15
Cape Town
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Dear Honourable Semenya

BRIEFING DOCUMENTS ON FALL ARMYWORM; LISTERIOSIS AND ORIENTAL FRUIT FLY

Please find attached, as requested, the following reports for the Honourable Members of the Portfolio Committee on Agriculture, Forestry and Fisheries:-

a) Fall Armyworm Update;
b) Briefing document on Listeriosis;
c) Media release on the Outbreak of the Oriental Fruit Fly; and
d) Cape Times news article on 20 February 2018.

I trust the above is in order.

Yours respectfully

(MR) S ZOKWANA (MP)
MINISTER FOR AGRICULTURE, FORESTRY AND FISHERIES
DATE: 21-02-2018

agriculture,
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Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

BRIEFING DOCUMENT
FALL ARMYWORM (FAW) UPDATE
FEBRUARY 2018

1. Background

Fall Armyworm (FAW) is a quarantine pest for South Africa, with an internationally documented wide host range. It is a notifiable pest in South Africa and regulated in terms of the Agricultural Pests Act 1983 (Act No. 36) of 1983 and the relevant regulations.

The presence of FAW in South Africa was confirmed on 3 February 2017 with positive morphological and molecular identification of caterpillars and adult moths. The presence of the pest was announced on the International Plant Protection Convention's portal in terms of South Africa's international pest reporting obligations. SADC member countries were also notified and regional control measures were discussed.

The Department of Agriculture, Forestry and Fisheries (DAFF) initiated a Fall Armyworm Steering Committee (FAWSC) which is a technical group investigating the best possible solutions to combat the FAW. The FAWSC membership includes representatives from the North West University (NWU), Agricultural Research Council (ARC), Croplife, Grain SA, South African national Seed Organisation (SANSOR), South African Biological Control Organisation (SABO), Insecticide Resistance Action Committee (IRAC), Provincial Departments of Agriculture and is chaired by DAFF. The stakeholders in the FAW Steering Committee have the following objectives.

- DAFF (monitoring, diagnostic, developed the model for management and control of the pest which was submitted to FAO), awareness, training, pesticide registration, legislation and enforcing)
- Provincial Departments (monitoring, extension support, awareness)
- ARC and Universities (research, diagnostics, training)
- CropLife SA and IRAC (Pesticide companies, registration, resistance monitoring)
- Producer organisations (Grain SA, SANSOR, etc. for monitoring, awareness and training)
- Private companies (monitoring, diagnostics, support).

The FAWSC is responsible for discussing and evaluating, among others, the surveillance programme, awareness programme, scouting methods, diagnostics, management practices, intervention by provincial Departments of Agriculture and relevant stakeholders, damage/loss assessment and future research on FAW and the development of Control Measures in terms of the Agricultural Pests Act.

2. Current Status in RSA

The FAW is probably in most of the maize production areas within the country. However, the infestation is very limited in some provinces. These include the following provinces: Gauteng, Mpumalanga, North West, Free State and Eastern Cape. High infestation occurs in Limpopo province and the Umkhanyakude District Municipality, in KZN. The infestation also appears to increase also in Mpumalanga (This was not captured on the status map (see attached) at the time of this report). No report of the pest in Northern Cape and Western Cape.

Affected provinces: There are no details from reports for the affected districts in Gauteng, North West and Mpumalanga for this report.

Limpopo:

District Municipality: Capricorn, Sekhukhune, Waterberg, Vhembe and MusinaDistrict Municipalities.

Hectares Affected: 4316 ha

Kwa-Zulu Natal:

District Municipality: Umkhanyakude Distric Municipality.

Hectares Affected: 219.1 ha

Eastern Cape:

District Municipality: Buffalo City Metro Municipality

Hectares Affected: 14ha

3. Interventions since 2017

Pesticides registered so far to deal with it

There are 50 registered agrochemicals thus far and they are available in the Departmental website. No new chemicals are registered in 2018.

What is the picture now compared to last year?

The infestation level is less than the previous year (2017), since most of the farmers are using and/or spraying registered agrochemicals. There were more chemicals registered during 2017 to control and manage the FAW. Therefore, there are more options to control the pest.

Provincial Actions:

DAFF: Submitted research needs to the Directorate Policy Research for 2018. There are currently no funds rolled out for the research. The Daff continues to conduct surveillance, awareness and coordination of all national, monthly reporting and steering committee meetings. Responsible, together with ARC, for the diagnostic identifications.

All provinces: The DAFF has intensified surveillance and trapping in all provinces

- **Eastern Cape**: weekly awareness conducted. Chemical spraying, (so far 14ha also along the coast were sprayed).
- **Gauteng**: Developed and printed awareness material and distributed to the farmers. Allocated R10 million for traps, lures and chemicals.

- **North West**: traps and pheromones procured and distributed to the farmers. Spraying equipment and protein kit (for diagnostic identification) procured. Continuous on-house Diagnostic training offered to all the farmers in the province
- **Limpopo**: the province spent R2.2 million towards chemicals which were provided to 714 affected farmers.

Other Stakeholders:

ARC: Responsible for diagnostic identification

GrainSA: Awareness campaign

SANSOR: Responsible for scouting and surveillance and awareness, training

CROPLIFE: Provides field training on trapping.

FAO: Provides traps and pheromone lures for monitoring and also sponsored the training workshops on diagnostic identification and surveillance. Coordinates research inputs within SADC.

Does the department have the situation under control?

The situation is under control and through regular engagement with different stakeholders from which include the provincial authorities. The implementation of the control measures relating to FAW is in ongoing and compliance with regard to reporting to the DAFF of any occurrence or suspected occurrence is being done in accordance with the Law.

Any likelihood of further outbreaks?

The public must be made aware that the pest might probably spread to lower warmer areas later in the season as similar to last year. Currently, the Department has allocated a budget to deal with the matter. Scouting has been intensified and more awareness being conducted.

Communication on Fall Armyworm

A Fall Armyworm Steering Committee has been established and serves as the platform for communication. The Steering Committee includes the Provinces, commodity organizations, ARC and others.

Communication and awareness are centralised in the Directorates Plant Health and Food Import and export Standards; furthermore, alerts and advisories are issued by the unit of Early Warnings in Plant health.

Fall Army Worm in RSA Provinces

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FAW infested places

Boundaries

International Boundaries

Provincial Boundaries

Coastline

Municipalities

FAW infested region

Directorate: ICT

agriculture,
forestry & fisheries

Department:
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BRIEFING DOCUMENT ON THE LISTERIOSIS OUTBREAK

1. PURPOSE

1.1. To brief the Portfolio Committee on Agriculture Forestry and Fisheries on the current status of Listeriosis outbreak in South Africa

2. BACKGROUND

2.1. As of 14 February 2018, 872 laboratory-confirmed listeriosis cases have been reported to NICD from all provinces since 01 January 2017.

2.2. Most cases have been reported from Gauteng Province (59%, 517/872) followed by Western Cape (13%, 111/872) and KwaZulu-Natal (7%, 62/872) provinces. Cases have been diagnosed in both public (64%, 559/872) and private (34%, 205/872) healthcare sectors.

2.3. This is an unusual occurrence in comparison to similar time periods for previous years.

2.4. Diagnosis was based most commonly on the isolation of Listeria monocytogenes in blood culture (73%, 640/869), followed by CSF (22%, 183/869).

2.5. Where age was reported (n=849), ages range from birth to 92 years (median 23 years) and 43% (352/829) are neonates aged ≤28 days.

2.6. Of neonatal cases, 97% (342/346) had early-onset disease (birth to ≤6 days). Females account for 53% (466/868) of cases where gender is reported.

2.7. Outcome is known for 597/872 (68%) patients of whom 164 (27%) have died.

2.8. Since 01 January 207, more than 533 L. monocytogenes isolates have been sequenced by whole genome sequencing (WGS) of which 400/533 were clinical isolates and 133/533 non-human isolates which included 111 food sample isolates and 22 food-processing environmental isolates.

2.9. In clinical cases, more than 20 sequence types (ST) were identified of which 90% (358/400) are ST6.

2.10. ST6 were identified from all provinces which supports the hypothesis of a single contaminated food item or multiple food items produced in a single contaminated facility.

2.11. In non-human isolates, 25 STs were identified and 2 isolates have tested ST6 positive.

3. DELIBERATION

3.1. Daff is represented on the Public Health Emergency Coordinating Committee (PHECC).

3.2. The PHECC has been meeting weekly and the Multi-Sectoral National Outbreak Response Team (MNORT) has been meeting monthly to discuss the Listeriosis outbreak.

3.3. The Department of Health (NDHO), Provincial and District Outbreak Response Teams have been activated. Investigation, tracing and follow-up of patients is underway.

3.4. Environmental health investigations and sample collection are ongoing in the various Districts.

3.5. The Department of Health Food Control directorate consolidated the information received from laboratories and industry organizations, following the request for information on Listeria monocytogenes testing data and isolates.

3.6. It is clear that confidentiality still remains an issue for some laboratories and as such the Directorate had a brief discussion with Legal Services for advice regarding the processes to deal with the non-disclosure indications by the laboratories.

3.7. A submission has been drafted on Department of Health Minister's request, to provide Minister of Health with an update on the response rate, follow-up actions to date and proposed recommendations which include the advice from Legal Services, for Minister's consideration and approval if in occurrence.

3.8. SANAS under Department of Trade and Industry encouraged all the acredited labs to provide information on listeriosis to the NDOH despite their confidentiality clause. However, some labs are still refusing to share information due to confidentiality.

3.9. The source of this outbreak is currently being investigated led by the NDOH. Environmental Health Practitioners (EHPs) are following up diagnosed cases and are visiting homes to sample food where available, as well as sampling from food processing and packaging plants. Teleconferences have been held with all provinces and municipalities.

3.10. DAFF was requested to take the lead of taking samples at production plants as well as Port of entries.

3.11. In December 2017 DAFF requested the provinces to visit and collect samples at abattoirs and export approved processing plants. To date only Gauteng has reported Listeria positive samples from abattoirs and processing plants.

3.12. DAFF assisted NICD and NDOH in the trace-back in two exports approved processing plants and the laboratory results of the samples collected are pending.

4. ATTACHMENTS

[a] Update report from NICD dated 14 February 2018

[a] Update report on Listeria from Gauteng Veterinary Services.

SITUATION REPORT ON LISTERIOSIS OUTBREAK, SOUTH AFRICA, 2018

Date of issue: 14 February 2018

Report issued by: Centre for Enteric Diseases (CED) and Division of Public Health Surveillance and Response, Outbreak Response Unit (ORU), National Institute for Communicable Diseases (NICD)/ National Health Laboratory Service (NHLS).

Descriptive epidemiology

As of 14 February 2018, 872 laboratory-confirmed listeriosis cases have been reported to NICD from all provinces since 01 January 2017 (Figure 1). Most cases have been reported from Gauteng Province (59%, 517/872) followed by Western Cape (13%, 111/872) and KwaZulu-Natal (7%, 62/872) provinces. Cases have been diagnosed in both public (64%, 559/872) and private (34%, 205/872) healthcare sectors. Diagnosis was based most commonly on the isolation of *Listeria monocytogenes* in blood culture (73%, 640/869), followed by CSF (22%, 183/869). Where age was reported (n=849), ages range from birth to 92 years (median 23 years) and 43% (352/829) are neonates aged ≤28 days (Figure 2). Of neonatal cases, 97% (342/346) had early-onset disease (birth to ≤6 days). Females account for 53% (466/868) of cases where gender is reported. Outcome is known for 597/872 (68%) patients of whom 164 (27%) have died

Figure 1: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection and province, South Africa, 01 January 2017 to 14 March 2018

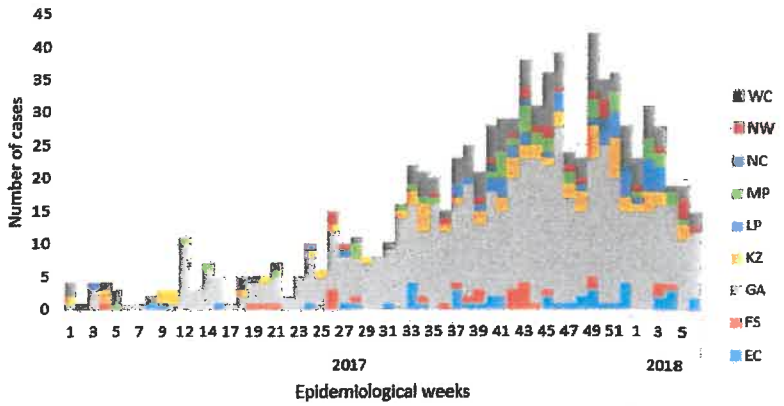
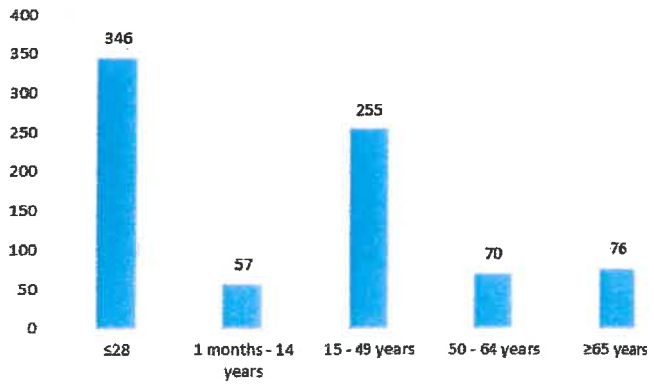


Table 1. Outcome of 872 persons with laboratory-confirmed listeriosis by province, as per 13 February 2018

	EC	FS	GA	KZ	LP	MP	NC	NW	WC	Total
Died	5	8	98	6	7	8	2	2	28	**164**
Discharged	13	13	255	19	10	28	2	14	79	**433**
Incomplete	24	7	154	36	25	3	1	10	4	**264**
UNK/RHT	0	0	10	1	0	0	0	0	0	**11**
Total	**42**	**28**	**517**	**62**	**42**	**39**	**5**	**26**	**111**	**872**

Figure 2: Age distribution of 804 laboratory-confirmed cases of listeriosis identified from 01 January 2017 to 14 March 2018 (n=849 where age was reported)



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Report on Sampling Results from Listeria investigations for Gauteng Province as at 1 February, 2018

1. Background

As of 23 January 2018, a total of 820 laboratory-confirmed listeriosis cases have been reported to NICD since 01 January 2017 (Figure 1). Most cases have been reported from Gauteng Province (59%, 486/820) followed by Western Cape (13%, 105/820) and KwaZulu-Natal (7%, 59/820) provinces. Cases have been diagnosed in both public (66%, 542/820) and private (34%, 278/820) healthcare sectors. Diagnosis was based most commonly on the isolation of Listeria monocytogenes in blood culture (71%, 579/820), followed by CSF (23%, 188/820). Where age was reported (n=784), ages range from birth to 93 years (median 18 years) and 42% (329/784) are neonates aged ≤28 days (Figure 2). Of neonatal cases, 96% (317/329) had early-onset disease (birth to ≤6 days). Females account for 55% (431/783) of cases where gender is reported. Final outcome data is available for 29% (238/820) of cases, of which 34% (82/238) died. [NICD situational report: listeriosis: http://www.nicd.ac.za/wp-content/uploads/2018/01/NICD-Situation-update-on-listeriosis-outbreak-South-Africa_25-January-2018.pdf]

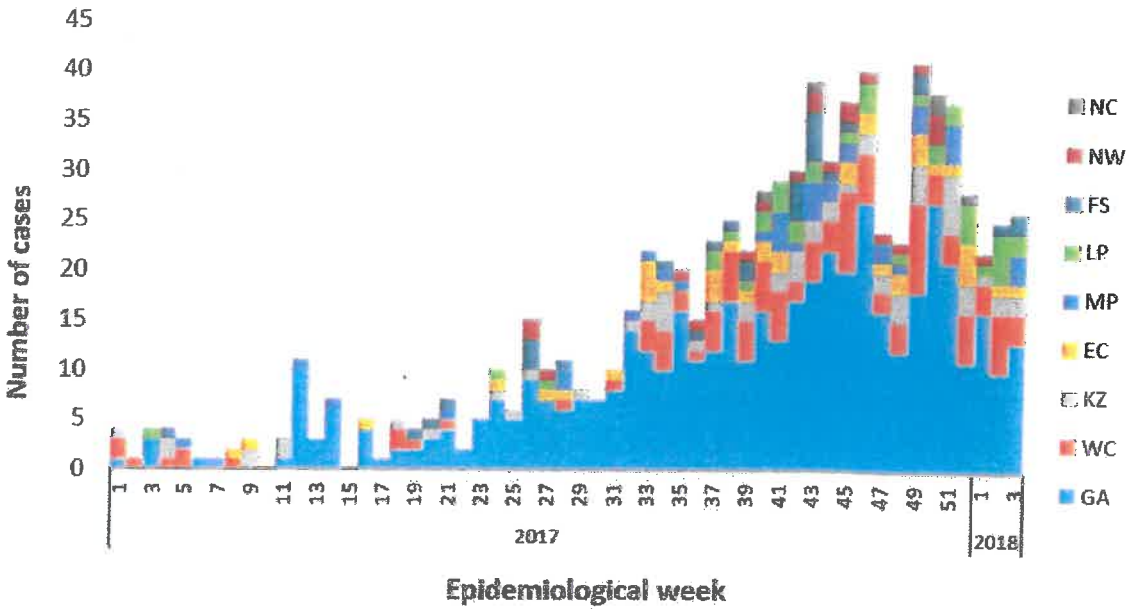


Figure 1: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection and province, South Africa, 01 January 2017 to 23 January 2018 (n=820)

At present, the source of the outbreak is not known. Cases of listeriosis continue to be investigated, with trace back and further investigation of any positive food/environmental samples collected by Municipal Environmental Health Practitioners (EHPs) from all provinces.

This report describes the distribution of sampling per municipality, and the prevalence of Listeria monocytogenes detected on food samples in the province, in order to assist in determining the source and the extent of the L. monocytogenes outbreak.

2. METHOD:

Descriptive analysis of Listeria monocytogenes EHP surveillance system.

Surveillance system: The Listeria monocytogenes surveillance system is a line list submitted by local municipal environmental health departments to the provincial Health Department on a weekly basis, where it is collated and distributed further to the National Health Department, to the National Institute for Communicable Diseases and to the Provincial Veterinary Services Epidemiology Section.

3. RESULTS:

a. Distribution of sampling per Municipality

A total of 274 samples were collected by Environmental Health Practitioners (EHPs) over Gauteng, from the 7th December 2017 to the 24th January 2018. No samples were collected during the last week of December 2017 and the first week of January 2018.

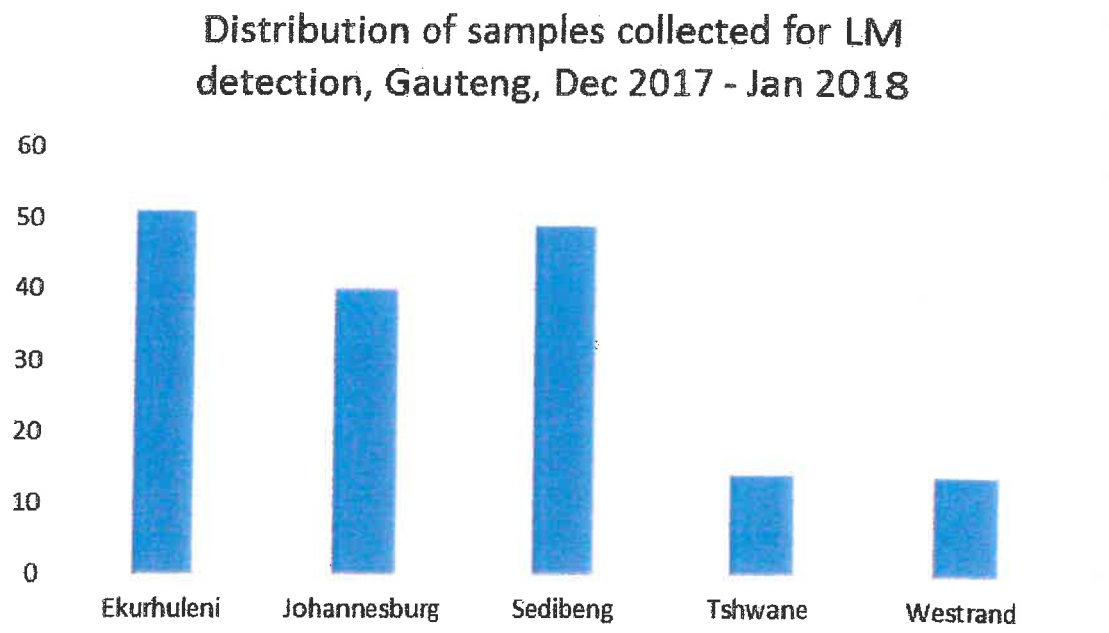
39% (106/274) of the results are outstanding mainly due to no media at the laboratory (19%), samples from Ekurhurleni, Sedibeng and Westrand, still being processed (80%). All samples where tested for *Listeria monocytogenes* LM detection at the National Institute for Communicable Diseases Laboratory (NICD).

Samples were taken within the following categories (Table 1).

Table 1: Categories of samples taken by EHPs

Category	
Beef	Fresh beef meat
Chicken	Whole, portions, fresh chicken
Cold meat	Hams, smoked meat, processed cold meats
Dairy	Cheese, yoghurt, ice-cream, milk, cream
Fish	
Meat u/k	Where identifying what type of meat from the description given was not possible.
Mince	Mince meat
Offal	Where no evidence that it is cooked
Pork	
Ready to eat	Cooked meals – stews, offal
Salads	Salsa, coleslaw
Sauces	
Sausage	Wors, Russians, viennas, salami
Soil	Soil from informal sellers
Surface swab	Swab taken from a surface in a retailer or facility
Vegetable and Fruit	

The number of sample collected per municipality are given below:



b. Prevalence of LM in samples collected by EHPs

There is a prevalence of 21.4% among the samples collected by the EHPs from December 2017 to January 2018, with the highest prevalence of 57% (8/14) being detected in Tshwane followed by Sedibeng, 32.7% (16/49), Johannesburg, 15% (6/40) and Ekurhuleni, 11.8% (6/51). The temporal pattern of LM detection within local municipalities, over the period, is reflected in Figure 2 below.

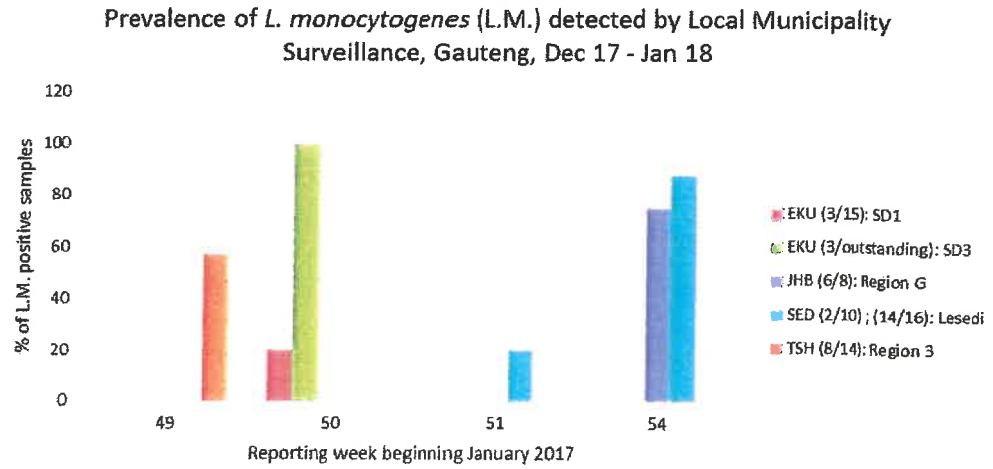
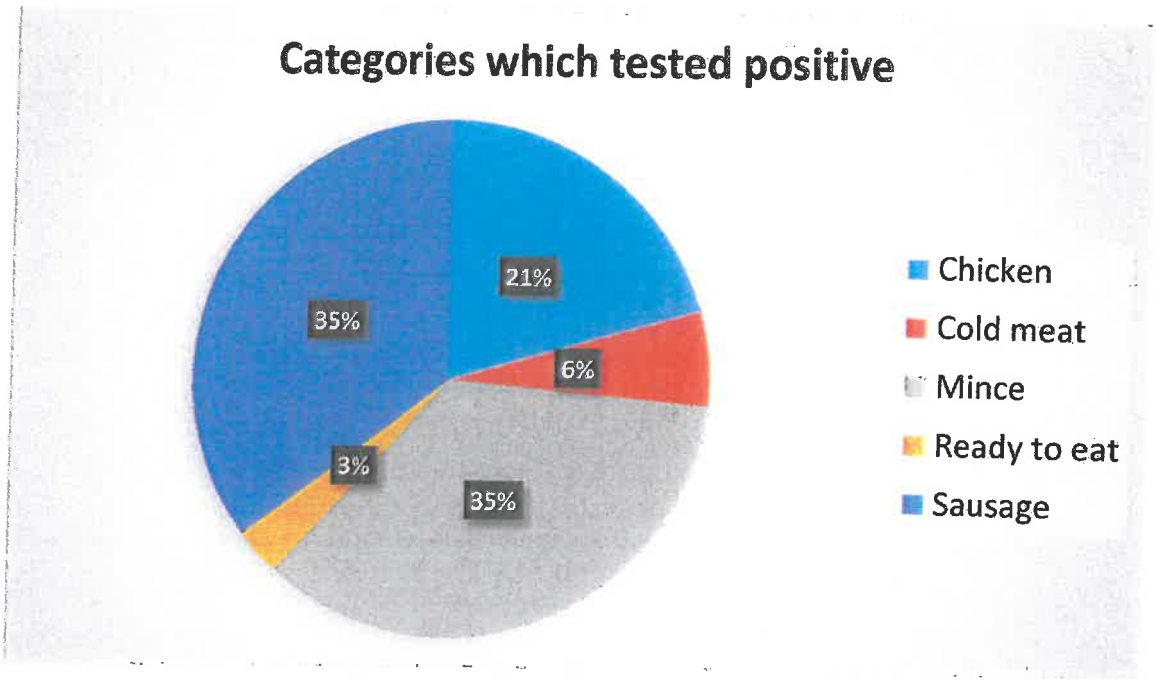
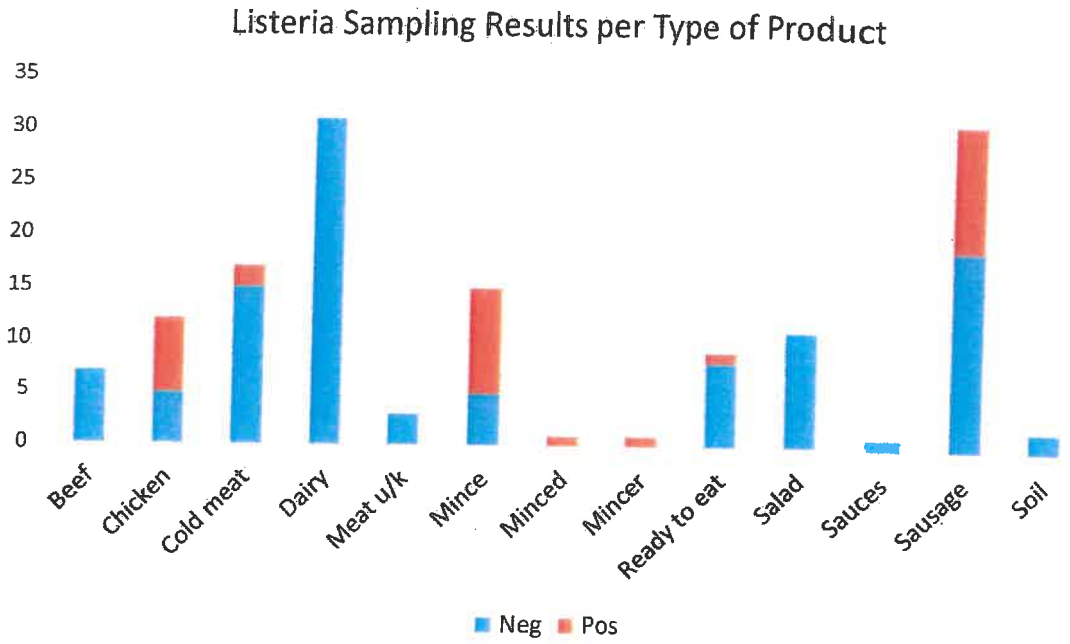


Figure 2: Temporal pattern of LM detection by EHPs, Gauteng, 2018

c. Product Type



Processed meats (Cold meats, mince and sausages) are the largest factor currently, representing 72% of all positive samples.



4. Discussion

The detection of Listeria monocytogenes in 21.4% of the samples taken by the Environmental Health Practitioners over December 2017 to the 24th January, highlights that there is a risk to the consumers of these food products.

The high prevalence in processed meats indicates the possible contamination/cross-contamination within the production/packaging facility.

There is a variation of prevalence of LM detected, between municipalities and within municipalities. The high prevalence in Tshwane can be explained by the low sample number. This was due to all samples arising from a focal investigation early in December at a single poultry abattoir/retailer in Tshwane. All the positive samples isolated from chicken, were from this abattoir/retailer. This abattoir/retailer was targeted for surveillance by the EHPs through a trace back investigation. However, the LM serovar did not match the ST6 serovar that is currently being isolated from human cases.

Lesedi, in Sedibeng Municipality has detected LM in the 2nd last week of December and the 2nd week in January. Through a second surveillance system, managed by Gauteng Department of Agriculture and Rural Development (GDARD) Veterinary Public Health officials, LM was detected at a medium throughput (3600 per day) poultry abattoir in Heidelberg, Lesedi, in samples taken from the chiller drains and dispatch drains.

5. Recommendations

a. A clear plan with measurable objectives in response to the detection of LM through the Environmental Health Practitioners surveillance, needs to be communicated with all stakeholders and must be implemented as soon as possible. This plan must include further characterisation of LM detected and the relatedness of LM serovars detected through the different surveillance systems for LM.

b. The role of processed foods (cold meat (2), mincemeat (11) and sausage (10)), in the outbreak of LM in humans, needs to be investigated further.

c. A sampling strategy needs to be adopted to effectively cover Gauteng, to determine the prevalence and characterisation of LM serovars circulating in food and abattoirs across Gauteng. This plan must be communicated with the laboratory so they are aware of the expected number of samples to be sent (See Ekurhuleni).

d. A clear case definition for LM that will trigger in an outbreak investigation by GDARD officials, including a comprehensive trace back and trace forward investigation should be agreed on as soon as possible. This case definition should include an epidemiologic link to the current outbreak in humans (e.g. same serovar, location, time period etc). It is recommended that these investigations be conducted by a team that includes both the VPH (GDARD) official and the EHP (local municipality) official.

Compiled by Epidemiology, Gauteng Veterinary Services with the data at their disposal at the date of compilation.

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Media Release **19 February 2018**

Outbreak of the Oriental fruit fly (OFF) in the Grabouw area, Western Cape Province

The Department of Agriculture, Forestry and Fisheries (DAFF) hereby makes an announcement on the recent detection of the Oriental fruit fly in the Grabouw, Western Cape Province. The Oriental Fruit Fly is an exotic fruit fly native to Asia, previously described from Africa as the Invader fruit fly *(Bactrocera invadens).*

On 31 January 2018 one male specimen was detected in the Grabouw area in the Western Cape in a protein baited trap. The trap was serviced by FruitFly Africa who immediately reported it to DAFF. The identification of the specimen was confirmed by a fruit fly specialist on 1 February 2018. On 6 February 2018 a female specimen of the OFF was detected in the same trap as the first detection and the identification was confirmed by a fruit fly specialist on the same day. Final confirmation of the identification of the specimens was made by means of PCR analysis.

A quarantine area of a 5km radius from the detection point was established after the first detection and a delimiting survey was initiated on 2 February 2018. Growers, packing and processing facilities of host material have been placed under quarantine and eradication initiated in a 25km^2 area surrounding the detection point. Growers within the eradication area will have to apply for permits to remove produce for packing or to move produce outside the area subject to phytosanitary conditions.

On 14 February 2018, a third specimen was detected in a methyl eugenol baited trap approximately 6km from the first detection point close to Grabouw.

The commercial fruit at threat include mango, guava, citrus, papaya, apple, pear, apricot, peach, pear, cherry, grapes, passion fruit, pepper, tomato and cucurbits. This pest can result in food insecurity, yield reduction, job losses, market restrictions and high production and post-harvest costs, if not effectively controlled.

This pest can be controlled by practicing effective orchard/field sanitation, chemical control [Male Annihilation (MAT) blocks and protein bait stations or protein bait sprays] and regulation of the removal of host material from quarantine (infested) areas to non-quarantine (non-infested) areas.

As part of the official control mechanism, community members and farmers are reminded not to remove fruit from quarantine areas to non-quarantine areas without first receiving a removal permit which is obtainable from the DAFF in terms of the Control Measures R.110 of the Agricultural Pests Act,1983 (Act No. 36 of 1983).

All traders and transporters of fruit and vegetables that are hosts of the OFF must be in possession of a removal permit or a copy of a valid removal permit if fruit from infested areas (Limpopo, Mpumalanga, North West, Gauteng and some parts of Kwa Zulu-Natal) are removed or destined to be sold in the OFF pest free areas (Western Cape, Eastern Cape, Free State and parts of KwaZulu-Natal). International travelers are advised to avoid illegal importation of agricultural commodities into South Africa because this may lead to the introduction of new pests and diseases which are expensive and difficult to manage.

Please do not remove the fruit-fly trapping buckets placed along roadsides in production areas and other public areas. Their presence is essential to the national exotic fruit fly surveillance programme. People in all provinces producing the host crops of this pest are advised to stay alert and practice the stipulated control measures.

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Cape Times
26/2/2018 (page 3)

Fruit fly outbreak in Grabouw

Lisa Isaacs

THE invasive oriental fruit fly has been detected in and near Grabouw resulting in the area being placed under quarantine.

The fly is native to Asia and poses a threat to commercial fruits, including mango, guava, papaya, apple, pear, apricot, peach, pear, cherry, grapes, passion fruit, pepper and tomato, the Department of Agriculture, Forestry and Fisheries said.

This pest can result in food insecurity, yield reduction, job losses, market restrictions and high production and post-harvest costs, if not effectively controlled.

According to the department, the first specimen, a male fly, was detected in the Grabouw area in a protein baited trap at the end of January.

The identification of the specimen was confirmed the next day.

On February 6, a female specimen was detected in the same trap.

"A quarantine area of a 5km radius from the detection point was established after the first detection and a delimiting survey was initiated. Growers, packing and processing facilities of host material have been placed under quarantine and eradication initiated in a 25km^2 area surrounding the detection point.

"Growers within the eradication area will have to apply for permits to remove produce for packing or to move produce outside the area subject to phytosanitary conditions," the department said.

Last week, a third specimen was detected about 6km from the first detection point. The pest can be controlled by practising effective orchard/field sanitation, chemical control and regulation of the removal of host material from quarantine areas to non-quarantine areas.

Spokesperson for economic opportunities MEC Alan Winde, Bianca Capazorio said: "It has established itself in Limpopo, North West and parts of KZN. Its preferred host is mangoes, but there is a wide host range and all efforts are being made to keep it from establishing."

A survey has been conducted to identify potential spread and weekly control measures have been implemented.

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The case was postponed.