Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID-AFRIKA

Regulation Gazette No. 7734 *Regulasiekoerant*

Vol. 458 Pretoria, 8 August / Augustus 2003 **No. 25278**

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GOVERNMENT NOTICES
GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF HEALTH
DEPARTEMENT VAN GESONDHEID

No. R. 1124 **8 August 2003**

FOODSTUFFS, COSMETICS AND DISINFECTANTS ACT, 1972 (ACT NO. 54 OF 1972)

REGULATIONS GOVERNING TOLERANCES FOR FUNGUS-PRODUCED TOXINS IN FOODSTUFFS

The Minister of Health intends, in terms of section 15(1) of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), to make the regulations in the Schedule.

Interested persons are invited to submit any substantiated comments or representations on the proposed regulations to the Director-General of Health, Private Bag X828, Pretoria, 0001 (for the attention of the Director: Food Control), within two months of the date of publication of this notice.

SCHEDULE

1. Definitions

In these regulations **"the Act"** means the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), and any word or expression to which a meaning has been assigned in the Act bears such meaning and, unless the context indicates otherwise -

"Ergot sclerotia" means the sclerotia of the fungus *Claviceps purpurea*;

"further processing" means shelling, sorting, and/or any other physical treatment e.g. blanching, roasting or mincing before human consumption or use as an ingredient in foodstuffs.

2. Tolerances

(1) For the purposes of section 2(1)(b)(i) of the Act, in so far as it is applied to and

is applicable to foodstuffs, the following foodstuffs are hereby deemed to be contaminated, impure or decayed:

(a) Peanuts intended for further processing, that contain more than 15 micrograms per kilogram of aflatoxin, and all other foodstuffs which contain more than 10 micrograms per kilogram of aflatoxin, and/or more than 5 micrograms per kilogram of aflatoxin B1;

(b) wheat, rye, barley and oats which contain more than 0,02% (m/m) of *Ergot sclerotia;*

(c) milk containing more than 0,05 micrograms per kilogram aflatoxin M1;

(d) all foodstuffs containing more than 50 micrograms per kilogram of patulin.

(2) The sampling plan for total aflatoxins in peanuts referred to in regulation 2(a) to be used for enforcement and control practices shall be that laid down in the Annexure.

3. Repeal

The regulations published under Government Notice No. R. 313 of 16 February 1990 as amended by Government Notices Nos. R. 614 of 23 March 1990, R. 830 of 20 March 1992 and R. 1143 of 4 August 1995 are hereby repealed.

ANNEXURE

SAMPLING PLAN FOR TOTAL AFLATOXINS IN PEANUTS INTENDED FOR FURTHER PROCESSING

Introduction

1. The sampling plan calls for a single 20 kg laboratory sample of shelled peanuts (27 kg of unshelled peanuts) to be taken from a peanut lot (sublot) and tested against a maximum level of 15 parts per billion (ppb) total aflatoxin.

2. This sampling plan has been designed for enforcement and controls concerning total aflatoxins in bulk consignments of peanuts traded in the export market. To assist member countries in implementing the Codex sampling plan, sample selection methods, sample preparation methods and analytical methods required to quantify aflatoxin in bulk peanut lots are described below.

Definitions:

In this Annexure the following terms shall bear the meaning assigned to them below:

Aggregate sample: The combined total of all the incremental samples taken from the lot or sublot. The aggregate sample has to be at least as large as the 20 kg laboratory sample.

Incremental sample: A quantity of material taken from a single random place in the lot or sublot.

Laboratory sample: The smallest quantity of peanuts comminuted in a mill. The laboratory sample may be a portion of or the entire aggregate sample. If the aggregate sample is larger than 20 kg, a 20 kg laboratory sample should be removed in a random manner from the aggregate sample. The sample should be finely ground and mixed thoroughly using a process that approaches as complete a homogenisation as possible.

Lot: An identifiable quantity of a food commodity delivered at one time and determined by the official to have common characteristics, such as

origin, type of packing, packer, consignor or markings.

Sampling plan: An aflatoxin test procedure and an accept/reject limit. An aflatoxin test procedure consists of three steps: sample selection, sample preparation and aflatoxin quantification. The accept/reject limit is a tolerance usually equal to the Codex maximum limit.

Sublot: A part of a large lot designated in order to have the sampling method applied to it. Each sublot must be physically separate and identifiable.

Test portion: A portion of the comminuted laboratory sample. The entire 20 kg laboratory sample should be comminuted in a mill. A portion of the comminuted 20 kg sample is randomly removed for the extraction of the aflatoxin for chemical analysis. On the basis of grinder capacity, the 20 kg aggregate sample can be divided into several equal sized samples, if all results are averaged.

Sampling

Material to be sampled

3. Each lot which is to be examined must be sampled separately. Large lots should be subdivided into sublots to be sampled separately. The subdivision can be done following the provisions set out in Table 1 below.

4. Taking into account that the weight of the lot is not always an exact multiple of the weight of the sublots, the weight of the sublot may exceed the mentioned weight by a maximum of 20%.

Table 1: Subdivision of large lots into sublots for sampling

Commodity	Lot weight – tonne (t)	Weight or number of sublots	Number of incremental samples	Laboratory sample weight (t)
Peanuts	≥ 500 > 100 and < 500	100 tonnes 5 sublots	100 100	20 20

	≥ 25 and ≤100	25 tonnes	100	20
	> 15 and ≤ 25	1 sublot	100	20

Number of incremental samples for lots of less than 15 tonnes

5. The number of incremental samples to be taken depends on the weight of the lot, with a minimum of 10 and a maximum of 100. The figures in Table 2 below may be used to determine the number of incremental samples to be taken. It is necessary that the total sample weight of 20 kg is achieved.

Table 2: Number of incremental samples to be taken depending on the weight of the lot

Lot weight tonnes (T)	No. of incremental samples
T ≤ 1	10
1< T ≤ 5	40
5< T ≤ 10	60
10< T < 15	80

Incremental sample selection

6. The Procedures used to take incremental samples from a peanut lot are extremely important. Every individual peanut in the lot should have an equal chance of being chosen. Biases will be introduced by the sample selection methods if equipment and procedures used to select the incremental samples prohibit or reduce the chances of any item in the lot from being chosen.

7. Since there is no way to know if the contaminated peanut kernels are uniformly dispersed through out the lot, it is essential that the aggregate sample be the accumulation of many small portions or increments of the product selected from different locations throughout the lot. If the aggregate sample is larger than desired, it should be blended and subdivided until the desired laboratory sample size is achieved.

Static lots

8. A static lot can be defined as a large mass of peanuts contained in either a single large container such as a wagon, truck or railcar, or in many small containers such as sacks or boxes, and the peanuts stationary at the time a sample is selected. Selecting a truly random sample from a static lot can be difficult because the container may not allow access to all peanuts.

9. Taking an aggregate sample from a static lot usually requires the use of probing devices to select product from the lot. The probing devices used should be specially designed for the type of container. The probe should-
   (1) be long enough to reach all items in the lot;
   (2) not restrict any item in the lot from being selected; and
   (3) not alter the items in the lot.

   The aggregate sample should be a composite of many small increments of product taken from many different locations throughout the lot.

10. For lots traded in individual packages, the sampling frequency (SF), or number of packages that incremental samples are taken from, is a function of the lot weight (LT), incremental sample weight (IS), aggregate sample weight (AS) and individual packing weight (IP), as follows:

    Equation 1: SF = (LT x IS)/(AS x IP). All weights should be in the same mass units e.g. kilograms.

Dynamic lots

11. True random sampling can be more nearly achieved when selecting an aggregate sample from a moving stream of peanuts as the lot is transferred, for example by a conveyor belt, from one location to another. When sampling from a moving stream is carried out, small increments of product should be taken from the entire length of the moving stream and the composited to obtain an aggregate sample. If the aggregate sample is larger than the required laboratory sample, the aggregate sample should be blended and subdivided to obtain the desired size laboratory sample.

12. Automatic sampling equipment such as cross-cut samplers are commercially available with timers that automatically pass a diverter cup through the moving stream at predetermined and uniform intervals. When automatic equipment is not available, a person can be assigned to pass a cup through the stream manually at periodic

intervals to collect incremental samples. Whether using automatic or manual methods, small increments of peanuts should be collected and composited at frequent and uniform intervals throughout the entire time peanuts flow past the sampling point.

13. Cross-cut samplers should be installed in the following manner:
    (1) The plane of the opening of the diverter cup should be perpendicular to the direction of flow;
    (2) the diverter cup should pass through the entire cross sectional area of the stream; and
    (3) the opening of the diverter cup should be wide enough to accept all items of interest in the lot.

    As a general rule, the width of the diverter cup opening should be about three times the largest dimensions of the items in the lot.

14. The size of the aggregate sample (S) in kg, taken from a lot by a cross-cut sampler is:

    Equation 2: S = (D x LT)/(T x V). D is the width of the diverter cup opening (in cm), LT is the lot size (in kg), T is interval or time between cup movement through the stream (in seconds), and V is cup velocity (in cm/sec.).

15. If the mass flow rate of the moving stream is known, then the sampling frequency (SF), or number of cuts made by the automatic sampler cup is:

    Equation 3: SF = (S x V) / (D x MR). MR is the mass flow rate (in kg/sec.)

16. Equation 2 can also be used to compute other terms of interest such as the time between cuts (T). For example, the required time (T) between cuts of the diverter cup to obtain a 20 kg aggregate sample from a 30 000 kg lot where the diverter cup width is 5.08 cm (2 inches), and the cup velocity through the stream 30 cm/sec. Solving for T in Equation 2 is done as follows:

    T = (5,08 cm x 30 000 kg)/(20 kg x 30 cm/sec.) = 254 sec.

17. If the lot is moving at 500 kg per minute, the entire lot will pass through the sampler in 60 minutes and only 14 cuts (14 incremental samples) will be made by the cup through the lot. This may be considered too infrequent, in that too much product passes through the sampler between the time the cup cuts through the stream.

Weight of the incremental sample

18. The weight of the incremental sample should be approximately 200 grams or greater, depending on the total number of increments, to obtain an aggregate sample of 20 kg.

Packaging and transmission of samples

19. Each laboratory sample shall be placed in a clean, inert container offering adequate protection from contamination and against damage in transit. All necessary precautions shall be taken to avoid any change in composition of the laboratory sample which might arise during transportation or storage.

Sealing and labelling of samples

20. Each laboratory sample taken for official use shall be sealed at the place of sampling and identified. A record must be kept of each sampling, permitting each lot to be identified unambiguously and giving the date and place of sampling, together with any additional information likely to be of assistance to the analyst.

C. Sample preparation

Precautions

21. Daylight should be excluded as much as possible during the procedure, since aflatoxin gradually breaks down under the influence of ultraviolet light.

Homogenisation – Grinding

22. As the distribution of aflatoxin is extremely non-homogeneous, samples should be prepared – and especially homogenised – with extreme care. All laboratory samples obtained from aggregate samples are to be used for the homogenisation/grinding of the sample.

23. The sample should be finely ground and mixed thoroughly, using a process that approaches as complete a homogenisation as possible.

24. The use of a hammer mill with a No 14 screen (3,1 mm diameter hole in the screen), has been proven to represent a compromise in terms of cost and precision. A better homogenisation (finer grind or slurry) can be obtained by more sophisticated equipment, resulting in a lower sample preparation variance.

Test portion

25. A minimum test portion size of 100 g should be taken from the laboratory sample.

D. Analytical Methods

Background

26. A criteria-based approach, whereby a set of performance criteria is established with which the analytical method used should comply, is appropriate. The criteria-based approach has the advantage that, by avoiding setting down specific details of the method used, developments in methodology can be exploited without having to reconsider or modify the specified method. The performance criteria established for methods should include all the parameters that need to be addressed by each laboratory, such as the detection limit, the repeatability coefficient of variation, the reproducibility coefficient of variation, and the percentage recovery required by various statutory limits. Laboratories utilising this approach, would be free to use the analytical method most appropriate for their facilities. Analytical methods (such as AOAC) that are internationally accepted by chemists may be used. These methods are regularly monitored and improved.

Performance criteria for methods of analysis

Table 3: Specific requirements with which methods of analysis should comply

Criterion	Concentration range	Recommended value	Maximum permitted value
Blanks	All	Negligible	-
Recovery-Aflatoxins Total	1 – 15 µg/kg	70 to 110 %	-
	> 15 µg/kg	80 to 110 %	-
Precision RSD_R	All	As derived from	2 x value derived

		Horwitz Equation	from Horwitz Equation
Precision RSD_r may be calculated as 0,66 times Precision RSD_R at the concentration of interest.			

- The detection limits of the methods used are not stated as the precision values are given at the concentrations of interest.
- The precision values are calculated from the Horwitz equation, i.e.:

$$RSD_R = 2^{(1-0,5\log C)}$$

where

- ❖ RSD_R is the relative standard deviation calculated from results generated under reproducibility conditions $[(s_R/x) \times 100]$
- ❖ C is the concentration ratio (i.e. 1 = 100g/100g, and 0.001 = 1,000 mg/kg).

27. This is a generalised precision equation which has been found to be independent of analyte and matrix and dependent solely on concentration for most routine methods of analysis.

M.E. Tshabalala

DR M E TSHABALALA-MSIMANG
MINISTER OF HEALTH

No. R. 1125 **8 August 2003**

HEALTH ACT, 1977 (ACT NO. 63 OF 1977)

REGULATIONS GOVERNING GENERAL HYGIENE REQUIREMENTS FOR FOOD PREMISES AND THE TRANSPORT OF FOOD: AMENDMENT

The Minister of Health has, in terms of section 35, read with section 40, of the Health Act, 1977 (Act No. 63 of 1977), made the regulations in the Schedule.

SCHEDULE

1. In these regulations "the Regulations" means the regulations published under Government Notice No. R. 918 of 30 July 1999, as amended by Government Notice No. R. 723 of 12 July 2002.

Amendment of regulation 1 of the Regulations

2. Regulation 1 of the Regulations is hereby amended by the substitution for the definition of "inspector" of the following definition:

" **'inspector'** means a person contemplated in section 53(1) of the Act;".

Amendment of regulation 13 of the Regulations

3. Regulation 13 of the Regulations is hereby amended by the insertion of the following subregulation after subregulation (4):

"(5) No person shall transport food in bulk and semi-packed food in contravention of the provisions of the *Codex Code of Hygienic Practice for the Transport of Food in Bulk and Semi-packed Food* (CAC/RCP 47-2001).".

Insertion of regulation 14A in the Regulations

4. The Regulations are hereby amended by the insertion of the following regulation after regulation 14:

"Standards and requirements for bottled/packaged drinking waters (other than natural mineral waters)

14A. No person shall handle bottled/packaged drinking waters (other than natural mineral water) in contravention of the provisions of the *Codex Code of Hygienic Practice for Bottled/Packaged Drinking Waters (Other than Natural Mineral Waters)* (CAC/RCP 48-2001).".

DR M E TSHABALALA-MSIMANG
MINISTER OF HEALTH

No. R. 1125 **8 Augustus 2003**

WET OP GESONDHEID, 1977 (WET NO. 63 VAN 1977)

REGULASIES MET BETREKKING TOT ALGEMENE HIGIËNEVEREISTES VIR VOEDSELPERSELE EN DIE VERVOER VAN VOEDSEL: WYSIGING

Die Minister van Gesondheid het kragtens artikel 35, gelees met artikel 40, van die Wet op Gesondheid, 1977 (Wet No. 63 van 1977), die regulasies in die Bylae uitgevaardig.

BYLAE

1. In hierdie regulasies beteken die "Regulasies" die regulasies uitgevaardig kragtens Goewermentskennisgewing No. R. 918 van 30 Julie van 1999, soos gewysig by Goewermentskennisgewing No. R. 723 van 12 Julie 2002.

Wysiging van regulasie 1 van die Regulasies

2. Regulasie 1 van die Regulasies word hierby gewysig deur die omskrywing van "inspekteur" deur die volgende omskrywing te vervang:

"inspekteur" 'n persoon soos beoog in artikel 53(1) van die Wet;".

Wysiging van regulasie 13 van die Regulasies

3. Regulasie 13 van die Regulasies word hierby gewysig deur die volgende subregulasie na subregulasie (4) in te voeg:

"(5) Niemand mag voedsel in groot maat en halfverpakte voedsel in stryd met die bepalings van die *Codex Code of Hygienic Practice for the Transport of Food in Bulk and Semi-packed Food* (CAC.RCP 47-2001) vervoer nie.".

Invoeging van regulasie 14A in die Regulasies

4. Die Regulasies word hierby gewysig deur die volgende regulasie na regulasie 14 in te voeg:

"Standaarde en vereistes vir gebottelde/verpakte drinkwater (uitgesonderd natuurlike mineraalwater)

14A. Niemand mag gebottelde/verpakte drinkwater (uitgesonderd natuurlike mineraalwater) in stryd met die bepalings van die *Codex Code of Hygienic Practice for Bottled/Packed Drinking Waters (Other than Natural Mineral Waters)* (CAC/RCP 48-2001) hanteer nie.".

DR M E TSHABALALA-MSIMANG
MINISTER VAN GESONDHEID

DEPARTMENT OF SAFETY AND SECURITY
DEPARTEMENT VAN VEILIGHEID EN SEKURITEIT

No. R. 1119

8 August 2003

PRIVATE SECURITY INDUSTRY REGULATION ACT, 2001 (ACT NO 56 OF 2001): EXEMPTION IN TERMS OF SECTION 1(2) AND 20(5) OF THE ACT

By virtue of the power vested in the Minister for Safety and Security by section 1(2) and 20(5) of the Private Security Industry Regulation Act, 2001 (Act No 56 of 2001), I, Vincent Joseph Matthews, hereby determine that the following foreign employees of Rustenburg Platinum Mines Limited, who are entitled to work in South Africa, are exempted from the provisions of section 23(1)(a) of the Act on the condition that they only render a security service within Rustenburg Platinum Mines Limited, and that these individuals do not render a security services for other security businesses:

NAME	IDENTITY NUMBER	WORK PERMIT NUMBER
Monyane Jonathan	291389	LEMS000376
Mosebi Nicodema Noosi	M141358	LEMA000117
Abraham Dlamini	C67963	SWPP1185
Cyprian Petros Bhekumusa Dlamini	C467812	SWMA1179
David Sekoati Mefi	M279856	LEMA000205
Edward Tebogo Motaketsane	RA028250	LEMA000149
Julius Nkoebe Masopha	M176753	LEBT000074
Tsepo Jafeta	L026790	LEMO000181
Ben Mohato Madonge	N088188	LEMS338
Telang Martin Makhutla	L051787	LEMS222
Elias Taelo Mokitimi	RA101763	LEMS000482
Tumelo Augustinus Khobotle	M252699	LEMS000534
Leseba Peter Leseba	RA111131	LEMS000284
Nkhabutlane Daniel Noosi	RA017254	LEMA000163
Azael Tseliso Chobokoane	N274373	LEBT000257
Sarel Motsotuoa Mosenene	N191985	LEQU000264
Felix Tseliso Katile	N176766	LEBT000481
Nkareng Oliver Hlalele	N234692	LEMA000107
Retselisitsoe Sephton Mosenene	N051953	LEMS000391
Phineas Phoofolo Tholoana	M040444	LEBT000062
Seipato John Motsumi	N260300	BOKN000062
Petrose Tsamaisane Mosenene	P117287	LEQU000614

SIGNED at PRETORIA on this 4 day of July 2003.

V J MATTHEWS
DEPUTY MINISTER FOR SAFETY AND SECURITY


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Department of Environmental Affairs and Tourism


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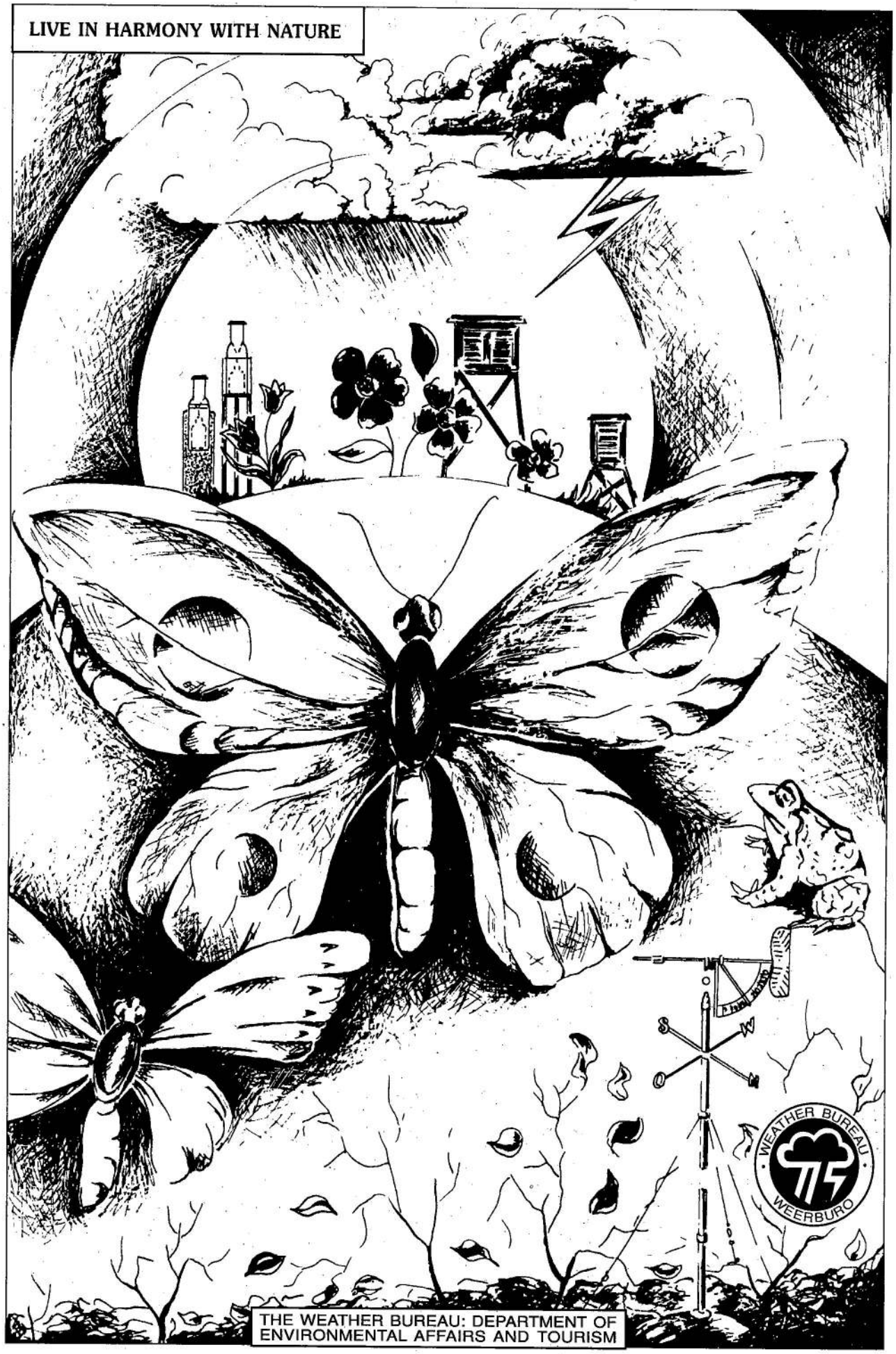
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Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Publications: Tel: (012) 334-4508, 334-4509, 334-4510
Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504
Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737
Cape Town Branch: Tel: (021) 465-7531

Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001
Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510
Advertensies: Tel: (012) 334-4673, 334-4674, 334-4504
Subskripsies: Tel: (012) 334-4735, 334-4736, 334-4737
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