**DRAFTSAINT LUCIA CODE OF PRACTICE**

**DCP 26**

**DRAFT CODE OF GOOD AGRICULTURAL PRACTICE – APICULTURE**

Edition 1.0

**Stage 40 — ENQUIRY DRAFT**

**June 2022**

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**Saint Lucia Bureau of Standards, (2022)**

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The Saint Lucia Bureau of Standards was established under the Standards Act (No. 14 of 1990) and started operations on 01 April 1991. A broad-based 15-member Standards Council directs the affairs of the Bureau.

The Standards Act gives the Bureau the responsibility to develop and promote standards and codes of practice for products and services for the protection of the health and safety of consumers and the environment as well as for industrial development in order to promote the enhancement of the economy of Saint Lucia. The Bureau develops standards through consultations with relevant interest groups. In accordance with the provisions of the Standards Act, public comment is invited on all draft standards before they are declared as Saint Lucia National Standards.

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In accordance with good practice for the adoption and application of standards, Saint Lucia National Standards are subject to review every five years. Suggestions for improvements are always welcomed at any time after publication of the standard.

**CODE OF GOOD AGRICULTURAL PRACTICE ⎯ APICULTURE**

## AMENDMENTS ISSUED SINCE LAST PUBLICATION

|  |  |  |  |
| --- | --- | --- | --- |
| **Amendment No.** | **Date of Issue** | **Type of Amendment** | **Text(s) Affected** |
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**ATTACHMENT PAGE FOR AMENDMENT SHEET**

**DRAFTSAINT LUCIA CODE OF PRACTICE**

**DCP:**

**CODE OF GOOD AGRICULTURAL PRACTICE ⎯ APICULTURE**

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Foreword

This edition of SLNS was adopted by the Standards Council on DD MMM YYYY.

This industry standard is developed to give guidelines to beekeepers on apiary management and honey production.

This code is a document for the management of beehives and sets out minimum guidelines for use by persons who own, manage or operate beehives in Saint Lucia with the intent of harvesting honey for commercial sales and distribution.

This code covers primary production practices up to the harvesting of honey combs.

In preparing this document guidance was derived from:

1. Apiary Code of Practice, State of Victoria Department of Planning and Community
2. Development May 2011;
3. Code of Practice for Urban Beekeeping in Southern Tasmania;
4. New Zealand Beekeeping Practices

In formulating this document considerable assistance was obtained from:

1. Scope

This code provides guidelines for operating an apiary and for beekeeping practices during primary production of honey for human consumption.

1. Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

* *DNS XX Code of Good Agricultural Practices* ***-*** *Organic Agriculture - Production and Processing*
1. Terms and definitions

For the purposes of this document, the following terms and definitions apply:

* 1. apiarist

 beekeeper

person keeping bees for subsistence, commercial or pollinating services

* 1. apiary

place in which a colony or colonies of bees are kept

NOTE An apiary can be a stand or shed for beehives or a bee house containing a number of beehives.

* 1. apiculture

 **beekeeping**

management of bees kept in hives

* 1. beehive

 **hive**

housing for a honey bee colony

NOTE Types of hives commonly used in Saint Lucia include Top bar, langstroth, perone

* 1. bee sting

injury or wound sustained and inflicted by a worker honey bee through insertion of stinger and release of venom

* 1. bee poop

faeces of bees

* 1. colony

family of bees: workers, a queen and drones

* 1. feral bee colony

colony of bees which has its nest in a place other than a beehive

EXAMPLE a hollow tree.

* 1. flight path

the distinct route taken by many bees leaving from or returning to their hive

* 1. foraging bees

bees seeking out supply of water, nectar or pollen

* 1. honeycomb

wax cells which house honey, pollen, and/ or brood

NOTE The different stages of the brood are eggs, larvae, pupae.

* 1. honey flow

the gathering of nectar from flora by honey bees during the peak period where flowering plants produce nectar

NOTE This period is often referred to as peak honey flow.

* 1. honey extraction

the removal of honey from combs

* 1. pollination

the transfer of pollen by honey bees from anthers to stigmas of flowers for the purpose of plant fertilisation

* 1. robber bees

bees attempting to access stored or spilt honey, or honey from another colony

* 1. super

in langstroth upper box containing frames, placed above the bottom or brood box of a hive

* 1. honey super

upper box of a hive which contains only honey

* 1. splitting hive

practice of separating beehives to create new queens and colonies

NOTE This practice is effective at preventing swarming, reducing breeding of mites and promotes survival of colonies.

* 1. sticky super

a super from which most of the honey has been extracted and which contains honey residue

* 1. swarm

cluster or flying mass of honey bees

1. Apiary management requirements
	1. Selection of Apiary Site
		1. Potential sites for apiculture shall be thoroughly evaluated by the relevant authorities to ensure environmental, ecological and social conditions are sustained and protected.

Suitable sites for Apiculture farms, should:

* avoid areas which are too windy;
* include windbreaks;
* be free from hazards;

EXAMPLE Flooding, fires, pesticides and other Chemicals, fallen trees and human activity.

* be at least 60 meters away from roadways, walkways, dwellings and commercial activities;
* be located where there is adequate bee pasture in relation to the number of hives, chosen preferably in the centre of the bee pasture;
* be within a 400 metres radius of a water supply;
* be away from heavy pesticide use and agricultural, residential or industrial processes;
* be away from sources emanating high odours, whether pleasant or unpleasant as honey in the hives may absorb these odours;
* be exposed to full sunlight;
* be near flowering plants for foraging;
* provide easy access by vehicular traffic.
	1. Placement of hives in an apiary

Correct placement of hives is one of the most important considerations for responsible beekeeping.

An apiary shall be in a quiet area of the allotment, and not within 3 m of a neighbouring property, unless a solid fence or impenetrable plant barrier, not less than 2 m high, forms the property boundary.

Keep hives as far away as possible from roads/highways, footpaths and parks commonly used by non-apiarists.

Face the entrance of the hives in such a direction that bees fly across the property. If this cannot readily be done, consider placing barriers in the form of hedges or shrubs or instant barriers consisting of shade cloth fixed trellis. Instant barriers may have to be up to 4m high. Bees will fly up and over these structures and should not worry neighbours.

In areas of high rainfall elevate the hive from the ground for moisture control.

* 1. Hive locations (urban areas)

Bee hives should be located within a safe distance so as not to cause a public nuisance.

NOTE Colonies located less than 50 to 100 m from public roads and buildings have been known to cause a disturbance.

Hives can be kept within 3 m of a boundary fence if:

* the height of the solid fence is more than 2 m;
* there is an adjoining structure with no windows facing the apiary;
* the adjoining property to that fence is unimproved land
* an impenetrable vegetative barrier (such as a hedge) not less than 2 m high is located on the property boundary adjacent to the hives.

If the above conditions cannot be met, the minimum distance hives can be kept from a fence is 3 m.

If a bee flight-path interferes with the use of neighbouring land a bee proof barrier must be assembled.

EXAMPLE Bee proof barriers includes trees, hedges, fences or buildings.

* 1. Hive densities

One of the primary limitations to the keeping of bees is the real or perceived interaction between the bee and people who live in or use the surrounding area.

To overcome this problem a hive density limit is proposed which will minimise the potential conflict between people and the honey bee.

Table 1 — Hive densities

|  |  |
| --- | --- |
| **Allotment area** | **Maximum Number of Hives** |
| Small block (less than 600 m2 )  |  4 |
| Average block (up to 1000 m2 ) | 8 |
| Larger block (larger than 1000 m2) | 16 |
| Rural  | No limit |

At certain times of the year, example when splitting hives, some additional hives should be permitted for short periods.

NOTE these are recommended maximum hive numbers; the density and configuration of surrounding dwellings will influence the actual suitable maximum number of hives in an apiary on a particular block of land, particularly in relation to swarming, flight path and ‘bee poop’ considerations.

* 1. Swarming

Swarming is a natural behaviour of honey bees and typically coincides with the honey flow which occurs between February and May. If possible, swarms should be collected when in the cluster stage to prevent settlement in nearby properties, houses, trees or similar sites.

Honey bee colonies should be managed to reduce or minimise swarming.

The most effective measure to reduce swarming is the inspection of hives for the management of queen cells, overcrowding and brood space. This may involve the replacement of old or failing queen bees with new ones, preferably ones with a low genetic disposition to swarm.

The deliberate splitting of a colony of honey bees into two or more units by the beekeeper will reduce its population and its likelihood to swarm. This procedure is known as artificial swarming and its practice is effective in removing the swarming impulse. Reuniting of these units can take place at a later time in order to reduce the number of hives.

Other measures such as the provision of additional supers for brood rearing and honey storage may also reduce the swarming impulse.

* 1. Capturing and hiving swarms

Beekeepers should act to promptly capture and hive a swarm that has emerged from one of their hives, after it has formed into a cluster.

* 1. Feral swarms and colonies

Swarms emerge from feral honey bee colonies periodically and these may fly into suburban areas adjacent to heavily forested areas or reserves.

Beekeepers are encouraged to make themselves available, for the collection of accessible feral swarms on both private and public land.

For established nests of bees in unwanted places, persons should consult a beekeeper first to assess the possibility of extracting the nest before considering destruction.

* 1. Provision of water

Apiaries should be situated in close proximity to a water source such as a river, pond or ravine. If these natural sources are not available, a good water supply should be available to honeybees in a partially shaded area and in close proximity to the hives. The water supply should be in place before the hives are introduced to apiary. Provide access to at least one litre of water per colony per day. Consideration should be given to evaporation of water from the water source during warm periods.

Containers of water should have floating material in the water to provide a landing platform and reduce the risk of bees drowning.

An alternative is to provide trays of damp sand and fine gravel as bees prefer a sunny place with capillary moisture.

The water level should be topped up by having water slowly drip from a container situated somewhere above the tray. In hot weather, bees use a large amount of water to maintain temperature and humidity within the hive.

EXAMPLE Corks, sticks and styrofoam are appropriate landing platforms.

NOTE Bees prefer to collect water from moist sand or soil at the edge of the main body of water at creeks, rivers, dams and other similar natural sources where there is little or no risk of being drowned.

* 1. Pesticides and herbicides

The use of pesticides and herbicides is discouraged especially near the apiary.

Fogging for mosquito control should not be carried out near apiaries.

* 1. Docile bees

Honey bee colonies should be maintained with queens of a docile strain. Docility is one of the main selection criteria in queen bee breeding programs.

NOTE Queen Bees are bred and offered for sale by beekeepers in Saint Lucia.

For reasons of minimising the risk of pest incursion, it is strongly recommended that new queen bees should be sourced from local beekeepers approved by the relevant competent authority.

Hives should be monitored for increase in aggressiveness.

NOTE Importing queen bees into Saint Lucia is controlled by the Ministry responsible for Agriculture enforcing Animal Disease and Importation legislation and supporting regulations.

* 1. Robber bees

When nectar is scarce, honey bees may rob honey from any source they can find outside their own hive. Exposure of honey, including sticky honeycombs, to honey bees in the open will encourage robbing. All spilt honey, supplementary feed and equipment should be cleaned up immediately. To prevent robbing, buildings and mobile units used for honey extraction purposes shall be made bee proof, as far as practicable.

* 1. Waste management

Beekeepers shall keep their sites in a clean and tidy manner at all times while hives are on location and ensure their sites are litter free when vacating them.

Facilities should be provided for waste disposal and storage.

Waste-disposal areas should be properly identified and designed for easy access.

Honey or honey products unfit for human consumption should be kept in covered containers with a label until disposed of appropriately.

* 1. Pest and disease management

Bee pests and diseases can be damaging to the survival of the apiary. There should be regular monitoring and inspection of hives.

There are a number of honey bee diseases, especially brood diseases. Beekeepers should obtain hives and stock from disease free apiaries and exotic breeds should be introduced only through the livestock authority.

Pesticides and chemical treatments for pests and disease management should be used according to the manufacturer’s instructions or relevant authority, observing the withdrawal periods, dosage for applications etc.

NOTE 1 Treatment for pests such as varroa mites should be undertaken before the honey flow begins and at the end of the honey flow to prevent chemical contamination honey.

NOTE 2 The honey super should be removed before treatment of the hives.

NOTE 3 Environmentally friendly chemicals or organic pest control is preferred for treatments.

Some bee diseases are ‘notifiable’ under the World Trade Organisation Sanitary and Phyto-sanitary (WTO SPS) agreement, and beekeepers should be familiar with the Saint Lucia Animal Health Bill and associated regulations. Beekeepers are encouraged to register with the livestock division to facilitate the management of exotic pests and diseases.

NOTE 4 On observation of any unusual or unrecognisable symptoms, the Apiculture Unit of the Department of Agriculture must be contacted.

* 1. Flight paths

Beekeepers should manage their hives to minimise the risk of interference with the general public, particularly in those areas used intensively for public access or recreation. An important element of this is the location of hives, so that the bees’ flight paths to and from the hives, when on their foraging flights, are consistently at least 3 m above public footpaths or recreation areas.

Fly-away barriers should be used to direct bee flight upwards and away from surrounding windows or entrances to buildings.

NOTE These can be located 1 to 2 m away from the hives.

Beekeepers are encouraged to provide food sources on their property to minimize changes in flight paths.

* 1. Harvesting and working hives

Avoid working or harvesting hives in cold, windy or wet conditions. In such conditions bees become aggressive, and the potential for trouble increases.

Beekeepers should cooperate with their neighbours when they need to work bees and ensure their neighbours are not working or relaxing outdoors at the time. Manipulate hives as quickly as possible so there is minimal disturbance to the bees.

Domestic animals or livestock should be kept away when bees are being worked, and until the bees have settled down afterwards.

NOTE A useful way of removing honey supers is to use clearer boards overnight. A clearer board is a device that helps remove the bees from the honey super. These are available from beekeeping suppliers.

* 1. Lights

Beekeepers shall place some physical barrier between the hive entrance and neighbours’ lights. At night bees are attracted to house lights, particularly fluorescent ones. If the windows are not screened, problems can occur.

* 1. Bee poop

Beekeepers should be aware that bees sometimes defecate when in flight and this can have an adverse effect on neighbours’ properties.

EXAMPLE Windows, cars, clothes on washing lines.

Where possible this problem should be mitigated by sitting hives where the bees’ flight paths will cause least ‘bee poop’ problems. Keeping bees healthy and disease-free also helps reduce the problem.

* 1. Storage of spare equipment

Previously used beehive components like boxes currently not housing bees, but stored for future use may attract bees and swarms. Hive components not stored in a bee proof area should be stacked in a manner that will not allow bees to enter. Sticky combs should be stored away from bees.

Spare equipment should be stored to prevent access by pests.

1. General requirements
	1. Transportation of hives

Beekeepers shall take appropriate care when transporting hives of honey bees. All loads of hives and supers of honey shall be secured.

Beehives are not classified as dangerous goods but when transporting animals such as bees the owner has a duty of care to community members thus putting the responsibility on the beekeeper to prevent any danger enroute.

The stopping off at fuel stations or travel through built up areas with bright street lighting and traffic lights could cause loss of stock and not be in the public’s best interest. Travel routes, refuelling and breaks should be carefully planned prior to departure.

Ideally, beehives should be transported by one of the following methods:

* 1. Closed entrance transport
1. this method allows an owner to shift bees a short distance and unload without being stung, by blocking the hive entrance with a foam strip or similar;
2. hives must be fitted with adequate ventilation so bees don't suffocate;
3. bees can be shifted in a conventional station wagon vehicle as well as on a truck;
4. hives can be closed at night after the bees, clustered at the entrance, are smoked and driven inside the hive; and
5. shifting should be done at night when all bees are at home and when temperatures are coolest.
	1. Netted bee transport
6. the use of nets allows beekeepers to move bees during daylight and dark hours, without closing the hive entrance;
7. bees need to be loaded at night or dusk;
8. nets should be secure enough to contain bees in transit and not flap in the breeze;
9. bees can be shifted during daylight hours provided temperatures are not too high; and
10. trucks should not be parked too close to bright lights. This will lessen the likelihood of bees becoming excited, or escaping, and causing a public nuisance.

EXAMPLE At service or gas stations.

* 1. Use of smoke by apiarists

Smoke is used by beekeepers as a management aid to subdue honey bees when opening hives.

The use of the bee smoker is a potential fire hazard. In periods of severe droughts, it is dangerous to use a smoker. The following rules shall be followed:

1. light the smoker in an area devoid of combustible material;
2. do not set the smoker down on combustible material whilst in use;
3. do not place the smoker on neighbouring hives or in a position where it can be dislodged by wind;
4. extinguish the smoker completely with water when finished;
5. at least 5 litres of water shall be readily available at the site.

Smoke the entrance of hives before mowing or using motorised trimmers nearby. These machines, along with the smell of cut grass, upset bees and operators or people passing by may be stung.

* 1. Protective clothing

When opening a hive, it is strongly recommended to protect the head and face with a hat and veil, or with a bee suit equipped with hood. If a full-length suit is not worn, it is good practice to wear long trousers of a light colour when working bees.

* 1. Honey sheds

Honey houses should be bee proof. The return from the field of honey supers will invariably invite robber bees until honey can be extracted. Likewise extracted, sticky supers are most attractive to robber bees and therefore should not be exposed.

Under no circumstances should sticky supers be left out in the open to be cleaned up by foraging bees. This is not only a bee disease hazard but increases the risk to community members of bee stings.

* 1. Removal of un-managed hives

Colonies of bees in hives need to be actively managed. If a landowner has a hive on their land which is not being actively managed by a beekeeper, it is recommended that they arrange for a certified beekeeper to remove it, or to start actively managing it on their behalf.

* 1. Security Measures

Beekeepers shall have security measures that limit access or potential for praedial larceny.

1. Organic Apiculture

Refer to Clause 9.1 *SLNS XX Code of Good Agricultural Practices- Organic Agriculture – Production and Processing for requirements for Organic Apiculture*.

1. Employee Welfare and Safety

Employees should be informed about the terms and conditions of employment.

Employees should be properly trained in personal hygiene and sanitation.

Persons known to be allergic to bee stings should not work in, or take up beekeeping.

Sanitation/personal hygiene policies should be documented and accessible to all employees.

Beekeepers/attendants who are ill or suffering from a communicable disease should not be allowed to work in honey-handling areas.

1. Record Keeping
	1. The maps and other documentation describing the areas of beekeeping shall be in accordance with all applicable restrictions and guidelines of the national competent authorities.
	2. The zone where the apiary is situated shall be registered with the national competent authority, together with the identification of the hives.

NOTE The relevant national competent authority and the verification body shall be informed of and agree to the moving of apiaries.

* 1. Particular care shall be taken to ensure adequate extraction, processing and storage of beekeeping products. All the measures to comply with these requirements shall be recorded.
	2. The removal of the supers and the honey extraction operations shall be entered in the register of the apiary.
	3. Accurate and up-to-date records should be kept for the following:
* hive location or mapping
* forage availability calendar
* financial records
* maintenance logs
* pest management log
* production logs
* transport
* water assessment report

**END OF DOCUMENT**