

Checklist

For

Contained Use (Glasshouses and Growth-rooms)

of Genetically Modified Organisms (GMOs) in Kenya

Biosafety Level 1 - 3

Guideline for Inspections

June 2004

Specification		Containment level		
		1	2	3
1	Green house: permanent structure	No	Yes	Yes
2	Internal walls, ceilings and floors shall be resistant to penetration by liquids and chemicals to facilitate cleaning and decontamination of the area. All penetrations into these structures and surfaces shall be sealed (e.g. cables, pipes)	No	Optional	Yes
3	Control of contaminated run-off water	Optional	Minimize run-off	Prevent run-off
4	There must be a suitable program been worked out to control plant pests, weeds, insects and rodents	Yes	Yes	Yes
5	Measures to control undesired species such as weed, insects, rodents, arthropods	Yes	Yes	Yes
6	Procedures for transfer of living material between the glasshouse/growth-room, protective structure and laboratory shall control dissemination of genetically modified micro-organisms	Minimize dissemination	Minimize dissemination	Minimize dissemination
7	Transport of GMO's in suitable closed no-breakable container	No	Yes	Yes
8	The container shall be decontaminated if organisms outside are present within the effective dissemination distance of the experimental organism, e.g. by fumigation	No	No	Yes
9	The ground of the greenhouse can be of gravel or other greenhouse-typical material. At least the pavement should be solid. e.g. of concrete.	Yes	Yes	Yes
10	The ground of the green house should be water impermeable material. Gravel and other porous material under the planting tables is suitable if there is only a minor possibility that reproducible biological material can be transmitted through the soil. In this case earth beds are also possible.	No	Yes	Not applicable
11	If part of the ground consist of gravel, appropriate treatments should be made periodically to eliminate, or render inactive, any organisms potentially entrapped by the gravel	No	Yes	Not applicable
12	The ground of the greenhouse is made of water impermeable material with provisions to collect and sterilize waste water.	No	No	Yes
13	Escape of GMO's	Minimized	Prevent	Prevent
14	Windows shall be closed and sealed	No	No with insect nets	Yes
15	All glazing shall be resistant to breakage	No	No	Yes
16	Biohazard sign at entry	No	Yes	Yes
17	A sign shall be posted indicating: - that a restricted experiment is in progress - name of responsible individual - plants (organisms) in use - special requirements for using the area	No	Optional	Yes

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		1	2	3
18	Access is limited to the project leader and personnel authorised by him	No	Yes	Yes
19	Protective clothing shall not be worn outside the greenhouse	Yes	Yes	Yes
20	Separate facilities for storing protective and street clothing shall be available	No	Yes	Yes
21	Protective clothing has to be sterilized before laundry	No	No	Yes
22	Gloves shall be worn at work	No	No	Yes
23	Injuries have to be reported immediately to the project leader	Yes	Yes	Yes
24	There must be written instructions for greenhouse practices and procedures	Yes	Yes	Yes
25	Hand disinfection apparatus and wash basin	No	Yes	Yes
26	Greenhouse to be entered via a lock with self-closing doors and hand disinfection apparatus and touch-free hand washing basin	No	No	Yes
27	Air intake screening and motorized or gravity-driven exhaust fan louvers	Yes	Yes	Not applicable
28	The glasshouse has to be held under negative pressure compared to the surrounding	No	No	Yes
29	If there is the danger of the dissemination of airborne pathogens, exhaust air has to be filtered through HEPA filters	No	No	Yes
30	Before disposal genetically modified plants have to be made unable to reproduce, e.g. by cutting off blossoms	Yes	Not applicable	Not applicable
31	Equipment which was in contact with GMO's has to be sterilized before cleaning, if the contact may lead to the transmission of GMO's	No	Yes	Yes
32	Autoclave inside the glasshouse	No	No, but available	Yes
33	The glasshouse has to be surrounded by a security fence or equal protection system.	No	No	Yes