

联合国在行动

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联合国对通过蚊子传播的寨卡病毒做出对策 UN RESPONDS TO MOSQUITO-BORNE ZIKA VIRUS

解说:

寨卡病毒,一种罕见的热带病毒,正在拉丁美洲及加勒比地区迅速蔓延开来。

A rare tropical disease – the Zika virus - is spreading rapidly in parts of Latin America and the Caribbean. (7)

2015年3月,巴西发现了首例寨卡病毒。该病毒感染了一百多万人。

In March 2015, the Zika virus first surfaced in Brazil and has infected more than one million people. (7)

国际原子能机构及联合国粮食及农业组织在寨卡病毒危机爆发后的第一时间

及时做出应对。

The International Atomic Energy Agency (IAEA) and the Food & Agricultural Organization (FAO) have responded swiftly to the Zika crisis. (10)

解说:

众多联合国机构携起手来,研制出一种能够通过核能技术释放出使雄性害虫丧失生育能力的射线。这项技术被称为"昆虫不育技术。

These UN Agencies came together to make available a nuclear technology that controls pests by rendering the males infertile with radiation. This is called, the Sterile Insect Technique or SIT. (15)

近来,来自世界各地的科学家齐聚于巴西,测试"昆虫不育技术"的实践成果。

A group of scientists from around the world gathered in Brazil recently to examine SIT's effectiveness. (6)

科学家们的结论证明,"昆虫不育技术"是一项有效,安全及环保的技术,通过对害虫的控制来实现抵抗寨卡之类的病毒传播。

They've concluded that SIT is an efficient, safe, and environmentally-friendly technique to control pests and fight diseases such as Zika. (9)

早在 20 世纪 30 年代,"昆虫不育技术"的雏形已被拟出。这涉及到将昆虫带进实验室,并将它们进行大量培育繁殖,之后通过诸如伽马射线或 X-光的照射,从而使雄性个体绝育。

Conceived in the early 1930's, the idea behind SIT is a simple one. It involves bringing the insects into a laboratory, rearing them in large numbers, and sterilizing only the males with ionizing radiation, such as gamma or x-rays. (18)

为了使"昆虫不育技术"收到成效,数以百万的绝育雄性昆虫将会被放归大自然,在接下来的数月中,他们的数量将会超越可生育的雄性个体。

For SIT to work, millions of sterile male insects must be released into the wild for several months to outnumber the fertile ones. (9)

马克·富莱森:

被放归大自然后,雄性昆虫将会寻找雌性进行交配。但交配过后,雌性个体无法受孕并产出后代。通过雄性群体的更新,你将会发现一段时间过后,目标群体的数量将会下降。 "What's going to happen is that the sterile males are going to seek out the virgin females, they are going to mate, but there's going to be no offspring. So, there's going to be reduced population replacement and you will see that after a while the target population is going to go down." (15)

解说:

在位于奥地利塞贝斯多夫的国际原子能机构的害虫防控实验室里

五十年来, 在昆虫学家们的研究下,这项技术得到不断的发展与改进。

At the IAEA's Insect Pest Control Laboratory in

Seibersdorf, Austria, entomologists have been developing and improving this technique for over 50 years. (11)

该项技术已在大约 25 个国家应用,主要是用来对付诸如果蝇,舌蝇等害虫。

It's already been used in around 25 countries, mainly to tackle pests such as fruit flies and tsetse flies. (8)

专家们正在针对大量繁殖的蚊子发展技术对策,将绝育过的个体转移到受寨卡病毒影响的国家,将"昆虫不育技术"融合进当地害虫防控计划。

Experts are now developing techniques for the mass-rearing of mosquitoes and transferring them to countries affected by Zika to help them integrate SIT into their pest control programmes. (11)

这里的成千上万只蚊子来自三个不同科属。

其中,埃及伊蚊便是一个特殊的种群。它们是寨卡病毒的主要传播媒介。

Over one hundred thousand mosquitoes from three different species are kept here. Special attention is being given to this one – The Aedes aegypti – which is responsible for spreading the Zika virus. (12)

马克·富莱森:

过去,用来对抗埃及伊蚊的传统防控方法并非十分有效。我们决定加入此项技术, 将传统和现代技术进行有机结合。

"What we have seen in the past is that Aedes aegypti control with conventional control tools has not been very successful. So we consider this as one additional, new tool that could be used to integrate with the conventional methods." (17)

解说:

科学家们已经为蚊子的整个生长周期创造了特殊的环境。 从卵到幼虫,再从蛹到成虫,

涵盖各个阶段。

Scientists have created a special environment for the entire life cycle of the mosquito.

...from the egg to the larvae...the pupae to the adult. (10)

害虫们在特制的巨型笼子里生活,孕育,繁殖,

The pests live, feed, and mate in large, specially-designed cages. (6)

通过研究,测量出适当的射线放射量,使雄性绝育的同时,更确保它们不受伤害且保留完整的交配能力。

Through research has determined the right dose of radiation to sterilize the males – without damaging them or affecting their mating ability. (9)

接下来,为更好帮助那些国家防御对抗寨卡病毒,国际原子能机构还向他们提供了便携式检测仪器,从而实现对病毒的快速检测。

In a further step to help countries tackle the Zika virus, the IAEA is providing portable equipment for the rapid detection of the virus.

同时也展开了对受影响国家的科学家们的技术培训。

Training scientists from the affected countries to use this system is also underway. (15) "昆虫不育技术"将与其它防控技术结合应用,从而帮助各个国家减少蚊子的数量,有效控制那些微小却足以致命病毒的传播。

When fully implemented and used alongside other control methods, the sterile insect technique could help countries reduce the numbers of mosquitoes... and cope better with the diseases these small but deadly creatures can spread. (15)

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