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SHORT COMMUNICATION

INSECTS AND WEED-SEEDS ASSOCIATED WITH IMPORT AND EXPORT PLANT COMMODITIES

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INTRODUCTION

The vast expansion in imports of plants and planting material has made the country more vulnerable for the introduction of new insects and weed species, which are hitherto not reported The Plant Quarantine Act No. 35 of 1999 of Sri Lanka is specifically introduced to prevent such alien introductions to the country through import commodities. Thus to fulfill this aim, adequate precautions need to be taken by the Plant Quarantine Service. The National Plant Quarantine Service, which was established in 1995, was able to detect several dangerous pests in agricultural commodities imported into the country and thereby averting unwanted aliens

This study was undertaken to identify the insect pests and weed seeds, found in imported stored products and export consignments. Samples of export and import commodities received from the Seaport, Colombo, from year 2000 was analyzed. Each of these samples weighing 1-2 kg, five sub samples of 100 g each was taken for the study.

RESULTS AND DISCUSSION

Of the 78 samples received 57 were analyzed for the study. About 31 found to be contaminated with either insects (21) or weed seeds (10).(Tables 1 and 2)

Table 1. Insect pests identified and percentage of samples infested in import commodities received from the Seaport, Colombo during the year 2000

Commodity	*Country of origin*	*No. of samples inspected*	*Percentage of samples infested*	*Pest infestation*	
				Insects identified	*No. of samples infested*
Fennel seeds	Pakistan	1	100	*Ephestia cautella* Walker. (Lepidoptera: Pyralidae)	1
Garlic	China	1	100	*Carpophilus* sp. (Coleoptera: Nitidulidae)	1
Groundnut	India	34	59	*Tribolium castaneum* Herbst. (Coleoptera: Tenebrionidae)	9
				Ephestia cautella Walker.	8
				Carpophilus sp.	1
				Caryedon serratus (Oliver) (Coleoptera: Bruchidae)	1
				Lasioderma serricorne Fabricus (Coleoptera: Anobiidae)	1
Red onion	India	2	50	*Carpophilus* sp.	1
Wheat pellets	Korea	1	100	*Oryzaephilus surinamensis* L. (Coleoptera: Tenebrionidae)	1
				Ephestia cautella Walker.	1

Table 2. Weed seeds identified in samples of import commodities received from the Seaport, Colombo during the year 2000

Commodity	*Country of origin*	*Weed seeds identified*
Coriander seeds	Romania	*Avena sativa**
		Strophostyles umbrellata
		Cirsium californicum
		Helianthus sp.*
		Saponaria officinalis
		Galium boreale
Fennel seeds	Pakistan	*Brassica campestris**
		Polygonum convolvulus
		Melilotus alba
		Linum usitatissimum
		Eriogonum alatum
Fenugreek seeds	Australia	*Avena sativa*
		Brassica camprestris
		Polygonum convolvulus
		*Hordeum vulgare**
		Lithospermum arvense
Red millet	India	*Seteria viridis*
		Panicum dichotomiflorum

* These are seeds of crop species, which are out of place hence identified as weed seeds.
** Found in Sri Lanka

Of the 59 export samples 8 were contaminated with insects (Table 3). With the implementation of free economy in the country, the importance of plant quarantine regulations and their imposition became vital, as there was a greater risk of introducing alien pests and diseases to the country. These regulations will deter the entry of such dangerous quarantine insect species such as; Colorado potato beetle, *Leptinotarsa decemlineata;* Mediterranean fruitfly *Ceratitis capitata* and the small brown plant hopper, *Laodelphax striatellus,* a serious pest of rice.

There is a potential of introducing new pests and weed seeds to Sri Lanka as well as to our commodity recipient countries. Since there were large number of samples infested by insect pests and the presence of weed seeds as well as foreign matter, shows that our importers and exporters are either ignorant or not well aware of the importance of high quality and value addition in export plant products. Therefore it is important that early action is taken to carry out awareness programmes for exporters regarding the correct attitude and procedural requirements for export commodities

Table 3. Insect pests identified and percentage of samples infested in export commodities received from the Seaport, Colombo during the year 2000

Commodity	*No. of samples inspected*	*Percentage of samples infested*	*Pest infestation*	
			Insects identified	*No. of samples infested*
Copra	7	59	*Plodia interpunctella* Hubner.	2
			Lasioderma serricorne Fabricus	1
			Sitophilus sp.	1
Copra expeller cake	1	100	*Lasioderma serricorne* Fabricus	1
Nutmeg	3	67	*Caryedon* sp.	1
Tamarind	2	50	*Sitophilus* sp.	2

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