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RODENT
Newsletter

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All India Network Project On Rodent Control
Central Arid Zone Research Institute
Jodhpur - 342 003, India

Regional Meeting on Rodent Pest Management for NEH Region held at Aizawl (Mizoram) from 21-22 April, 2006

Training on Rodent Management to Railway Officials at CAZRI, Jodhpur

Rodent control campaign at Jodhpur Railway Station

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AINP on Rodent Control
Central Arid Zone Research Institute
Jodhpur - 342 003, India

Effect of mulching on rodent abundance in potato crop in Assam

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Assessment of rodent problem in potato crop was undertaken in five villages, viz., Rongdoi, Gelabil, Jengrai, Kathkotia and Sonariati (Dist Jorhat, Assam) and also in the ICR farm of Assam Agricultural University, Jorhat (Assam) to study the effect of the mulching practices in potato on the extent of damage due to rodents. In the surveyed villages farmers usually grow potato in a part of the rice field during Nov-Dec after the harvest of Sali rice. In each village potato is cultivated, one with mulching practices and another without mulching. The lesser bandicoot rat, *Bandicota bengalensis* was the predominant rodent pest species infesting the potato fields in all the surveyed villages.

Table-1. Effect of mulching on the abundance of rodents in potato

Sl.No.	Name of the village	Damaged shoots (%)		Hoarding loss(kg/burrow)	
		Without mulching materials	With mulching materials	Without mulching materials	With mulching materials
1.	Rongdoi	2.55	4.21	2.03	3.70
2.	Gelabil	2.45	3.89	1.17	2.93
3.	Jengrai	3.48	7.23	2.83	5.17
4.	Kathkotia	2.10	5.03	1.33	2.07
5.	Sonariati	3.47	6.84	2.67	4.50
	Mean	2.81	5.44	2.01	3.67

Rice straw was generally used as mulching materials, which is applied 15 days after sowing. In all the villages the rodent damage was significantly higher in mulching potato plots than without mulching. The rodent damage in terms of percent shoot damage ranged from 3.89 to 7.23 per cent (Mean 5.44%) in plots with mulching materials against 2.10 to 3.48 per cent (Mean 2.81%) in plots without mulching. In addition to shoot damage the bandicoots inflicted losses by hoarding the young tubers in their burrows. The hoarding losses were also higher (2.07-5.17 kg/burrow) in mulched plots than that in non-mulched plot (1.17-2.83 kg/burrow). Jengrai village recorded maximum rodent damage to potato (Table 1).

Sensitivity of rats to detect selenium in wheat grains

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Rodents are important component of agricultural ecosystem and cause severe damage to crops by gnawing tillers and feeding on ripening grains. Their life depends upon their environmental protective adaptations with their sensory abilities to detect the quality of food and shelter resources in cropland ecosystem. In natural habitats olfaction and taste play crucial role in determining food quality. However, food quality depends upon the inorganic (minerals, salts and water) and organic composition of the soils as well as agrochemicals used in crop production. Soils in certain regions are known to contain high amounts of selenium that accumulates in plants and subsequently in grains depending upon the chemical form and local factors affecting selenium availability in the soils. Deleterious effects of fodder and grains produced in such soils are well known in laboratory animals, humans and domestic animals. In fact soil bome selenium toxicity of grains and fodder is a serious health hazard in certain parts of the world. However, how rats may protect under such conditions of crop production in selenium toxic soils is not known. Therefore, discriminating ability of laboratory bred albino rats, was determined using wheat grains produced in selenium toxic soils where the crop exhibited symptoms of selenium toxicity and from normal soils where the crop had no such symptom. The seleniferous wheat grains (Wse) had about 12.5 ppm selenium which was about 4-5 times more than in normal grains (W).

Experimental rats of five groups with 6 rats (3 males and 3 females) in each group were provided 20 g of foodgrains and water daily to individually caged rats for 14 days of the study period. The food provided to rats was 100% W (Group I), 100% Wse (Group II), 1:3 mixture of W and Wse (Group III), 1:1 mixture of W and Wse ((Group IV) and 3:1 mixture of W and Wse (Group V). Each W grain was marked with blue paint so as to separate these from Wse grains for determining the consumption of each type of grains daily for 14 days of the study period.

Significantly ($P < 0.01$) decreased mean daily consumption of Wse and W clearly showed discrimination of Wse against W (Table 1). Avoidance responses of rats to Wse increased with days of feeding. As

compared to day 1 its mean daily consumption showed a progressive decrease till day 14 when Wse treated rats showed significant ($P<0.01$) reduction in body weight compared to corresponding increase in weight of W fed rats. From the mixtures of W and Wse grains, the rats consumed either equal amount or even more of Wse on day 1, but thereafter they avoided Wse thus became significantly ($P<0.01$) less than of W grains. The Wse fed rats showed significant ($P<0.05$) reduction in body weights on day 14.

Table 1. Effects of selenium on feeding response of rats towards heat grains.

Treatments	Mean grain consumption on day 1 (g/100g body weight of rat)		Mean grain consumption of 14 day (g/100g body weight of rat)		Body weight (g) gain (+)/loss (-) on day 14
	Normal wheat grains (W)	Seleniferous wheat grains (Wse)	Normal wheat grains (W)	Seleniferous wheat grains (Wse)	
W (100%)	8.7+0.7	-	8.2+0.6	-	+10.3+3.4
Wse (100%)	-	4.6+0.7*	-	2.8+0.4*	-29.0+2.9**
W+Wse (1:3)	2.7+0.1	3.9+0.5*	3.2+0.1	1.5+0.4*	-23.5+1.0**
W+Wse (1:1)	2.6+0.1	4.3+0.6*	3.5+0.2	2.1+0.1*	-23.2+5.4**
W+Wse (3:1)	4.1+0.9	3.4+0.4*	5.4+0.4	1.1+0.3*	-8.3+1.6

** Significant ($P<0.01$) between mean daily consumption of W and Wse grains by student's t test. **, Significant ($P<0.05$) between mean body weights of rats on 0 day and day 14 of treatments by student's t test.*

The results clearly showed the sensitivity of rats for detection of Wse grains and also for their learned avoidance. Decreased total daily food intake for Wse treated rats and significant loss of their body weights reveals the toxic effects of selenium resulting to learned avoidance of selenium rich grains. With their sensitivity and learning behaviour, the rats were able to detect and avoid toxic grains from the mixtures of toxic and normal grains from the same feeding bowl. Rats are known to detect subtle changes in the composition of their food. The present study also clearly showed their ability to detect 12.5 ppm selenium in the wheat grains. Further, learned avoidance in rats as determined in the present investigation may help them to protect from feeding on grains containing toxic compounds .

Impact of rodent control programme on yield increase in groundnut and wheat in Gujarat

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A 15 years (1989-2004) regular programme for farmers' motivation through training and demonstration for rodent management and mass control campaign under experts supervision have been made in the selected pockets of groundnut (kharif) and wheat (rabi) area of Gujarat state. The farmers have been motivated to adopt the rodent control technology. It has a great impact on reduction in rodent populations as well as crop damage and resulted into increased yield of both the crops.

During the study period the yield of groundnut was obtained in the range of 1080 to 1820 kg/ha (average of 1389 kg/ha) in the area where the rodent control programme was adopted as compared to 854 to 1645 kg/ha (average of 1232 kg/ha) in the area where rodent control programme was not adopted. Thus the overall impact of rodent control programme in groundnut area gave 157 kg/ha more yield amounting in term of per cent increase in yield of groundnut due to rodent control, 5.22 to 20.92 per cent (Av. 12.74%) (Table 1).

In case of wheat crop, the yield was obtained in range of 3643 to 4791 kg/ha (average of 42.99 kg/ha) due to adoptions of rodent control programme while it was 3352 to 4535 kg/ha (Average 3987 kg/ha) in non adopted areas. Thus due to adoption of rodent control technology the wheat yield was increased in the range of 4.32 to 20.90 per cent with an average of 7.83 per cent (Table 1).

The intensive extension effort undertaken through large scale trainings and demonstrations organized collectively by the subject matter scientists, extensionists, public health and animal husbandry sectors, extension media (TV, Radio, News papers) and workshops in Gujarat State has immensely helped in effective transfer of rodent management technologies to the end users. During the chronic out breaks of rodent in Gujarat, Central Rodent Expert team constituted by the Government of

Table 1. Impact of adoption of rodent control technology on yield of groundnut and wheat in Gujarat

Groundnut (Kharif)			
Year	Yield kg/ha		% increased yield
	Adopted area	Non adopted area	
1989-91	1114	1035	7.63
1992-95	1080	854	20.92
1996-99	1820	1593	12.47
1999	1185	1090	8.02
2000	1150	1090	5.22
2001	1785	1645	7.84
2002	1475	1270	13.90
2003	1500	1280	14.67
Mean	1389	1232	12.74

Wheat (Rabi)			
Year	Yield kg/ha		% Increased yield
	Adopted area	Non adopted area	
1989-91	3643	3433	6.12
1992-95	4050	3352	20.90
1996-99	4448	4142	7.39
1999-2000	4155	3915	6.13
2000-2001	4578	4388	4.32
2001-2002	4737	4380	8.15
2002-2003	3990	3755	6.26
2003-2994	4791	4535	5.64
Mean	4299	3987	7.83

Gujarat visited the hot spot area of the State and a pilot project was undertaken in 12 identified districts during February 1990. The control campaigns were organized on mass scale under the close cooperation of all the Departments and farmers. The overall rodent control success of 95 per cent was achieved in this campaign. Approximately 130 lakhs rats were killed with incremental cost benefit ratio (ICBR) ranging from 1 : 31 to 1 : 337 in different districts.

Rodent damage in cauliflower crop in Punjab

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Cauliflower is an important winter vegetable crop grown under varying agro-climatic conditions in India. This crop is a rich source of vitamin A and C and also contains minerals including phosphorus, potassium, calcium, sodium and iron. Punjab Giant 26 is the main season variety in Punjab with a yield of 110 quintals of curds per acre. Damage caused to cauliflower by rodents mostly remains unrecognised. To assess the rodent damage in cauliflower crop, three locations with variable percentage of area under vegetable crops were selected, viz, Location I : village Dulma of district Sangrur where approximately 90% area was under vegetable crops and 10% area was under wheat or other crops, location II : village Orae of district Sangrur with approximately 60% area under vegetable crops and location III : village Saholi of district Ludhiana with approximately 10% area under vegetable crops and approx. 90% area under wheat-paddy cropping system. At each location fields of one acre area in triplicate were selected for determining the extent of rodent damage in cauliflower crop. To know the type of rodent species present at these locations trapping was carried out with single catch rat traps.

In mid November, at the fruiting stage of the crop, rodent damage was assessed by counting the total number of rows/acre and total number of plants/row. The rodent damage in randomly selected 10 rows/acre was recorded by observing number of damaged plants/row and then percent damage was calculated. Average percent damage was found to be 0.15, 0.29 and 20.00 at locations I, II and III respectively (Table 1). Maximum rodent damage was recorded at Location III, an area with vegetable as minor crops and wheat/paddy as major crops. This might be due to the fact that after paddy harvesting the rats migrated to the adjoining crops like vegetables or sugarcane fields, thus causing higher damage. However, there was less migration of rats after harvesting of paddy at location I and II being lesser area under paddy crop, thus causing less damage to cauliflower (Table 1).

Table 1. Rodent damage in cauliflower crop at fruiting stage at different locations of vegetable growing areas of Punjab

Village (District)	Approx. area under vegetable crops (%)	Major crops	Rodent species	% Damage	
				Range	Mean ± SD
Dulma (Sangrur)	90	Vegetables	*B.b. Mus* spp.	0-0.31	0.15±0.13
Orae (Sangrur)	60	Vegetables	*B.b. Mus* spp. *T.i.*	0.13-0.41	0.29±0.14
Saholi (Ludhiana)	10	Wheat-paddy	*B.b. Mus* spp.	0-50*	20.0±21.69

Bb- Bandicota bengalensis, Ti- Tatera indica, Mm- Millardia meltada
*Field adjacent to highly infested vacant wasteland

Evaluation of different formulations of neem for its bio-pesticidal potential against *Tatera indica*

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Rodent pest pose serious threats to various production system of arid zone, like agriculture, forestry and rangelands. Rodent management technology today relies heavily on use of broad-spectrum acute rodenticide, zinc phosphide, which, in most cases is extremely toxic to non-target organisms. It is, therefore, imperative to devise some non-lethal ecofriendly approach for rodent management. There is long history of the use of plant substances as protectant/deterrent/repellent against different pests of agriculture. Potential of neem as bio-pesticide against insect pest is well recognized, however, such information against vertebrate pests especially rodents is very meagre. Keeping this in view feeding trials with different formulation of neem developed by CAZRI, Jodhpur viz., pellets, neem powder, oil emulsion, etc. were conducted separately against Indian gerbil, *Tatera indica* in laboratory.

In each trial six healthy gerbils with no previous history of rodenticidal exposure were offered different formulation of neem under choice and no-choice conditions. The results revealed that test gerbils completely rejected the neem pellet formulation even under no-choice trials and thereby preferred to starve than to eat and one of the gerbil died during trial period. Similar behavior was shown by gerbils, in choice condition also, during all three days of treatment period indicating vast antifeeding deterrent/properties in pellet formulation of neem. Viewing such a strong deterrent/antifeedant property of neem pellets, these were grounded and mixed with bajra flour at a conc. of 5 and 10% (w/w basis) and offered to test gerbils for 2-5 days. In no-choice test no alteration in feeding pattern was seen during treatment period as the mean consumption of 5.91 and 6.09g was recorded with food treated with 5 and 10% conc. of pellets, respectively in comparison to 6.0 and 6.22g as pre and post treatment consumption, respectively. However, in choice condition a significant difference in the consumption of treated and plain bait was observed at both the test concentrations (5 and 10%). Consumption of treated food (2.65 & 2.18) was reduced to half of the plain food (4.11 & 5.85), revealing antifeeding/deterrent effect of pellets even at lower dosage of 5&10% in baits.

Neem powder under no-choice condition also showed some adverse effect on the feeding pattern of the gerbils as revealed from the difference in mean consumption during pre-treatment (5.85g) and treatment (2.9g) periods. This was further confirmed by the significant difference in the consumption of treated (2.08) and plain bait (3.78) in choice condition.

Neem oil emulsion at 5 per cent in pearl millet baits under no-choice condition also resulted in significant drop in consumption during treatment period (4.05g) in comparison to pre-treatment period (9.44g) and the effect continued during post treatment period also when a consumption of 4.59g was recorded. In choice test four concentration of oil emulsion i.e 1,2,3&5 percent in pearl millet baits was evaluated and here also a significant difference was observed in consumption between treated and plain bait with all the concentration. Mean consumption of treated bait was 3.57, 2.51, 2.99 & 3.04g as compared to pre-treatment plain consumption of 5.74, 6.72, 5.64 & 6.50g with 1,2,3 & 5 per cent conc., respectively.

The results indicate that the neem formulations possess anti-rodent properties, however further detailed field evaluation is required to ascertain the potential of neem products against rodent pests.

Strategies for rodent pest management in NEH region

(Excerpts from the Proceedings of Regional Meeting on Rodent Pest Management in NEH Region, held at Aizawl from April 21-22 2006)

Reports from Arunachal Pradesh, Meghalaya and Mizoram indicate that the jhumias and other farmers witness rodent problem after gregarious bamboo flowering. Although a large number of rodent species are reported from the NE states, only a few species are real cause of concern in the region. They are normally forest dwelling and in normal situations are not pests. Only during bamboo flowering period, they increase in number (may be due to favourable ecological situations) and cause problem in agriculture and storage situations. The problem species are (i) Himalayan rat, *Rattus nitidus* and (ii) White belied rat, *Niviventer niviventer* and (iii) Sikkim rat, *Rattus sikkimensis*. The following strategies were identified for adoption to manage these occasional rodent species mostly in jhum and WRC situations.

a. Integration among line Departments: In the NE region jhum and WRC fields are located in the forest ecosystems and mostly forest dwelling rodents as stated above would be invading the crops at maturity period. Horticulture crops are cultivated on terrace fields are also vulnerable for these invasive rodent species. The region is also adjoining Myanmar, which has recorded plague foci. As a result there could be a threat of public health diseases, since rodents are also vectors for human and animal diseases. Hence coordinated actions between Departments of Forest, Agriculture, Horticulture, Public Health etc are urgently required for effective management of rodent menace. Therefore all concerned States should develop inter Departmental Coordination Committees.

b. Survey of bamboo flowering areas: Joint survey teams drawn from the State Agriculture and Forest Departments may conduct surveys of bamboo flowering areas, especially of *Melocanna baccifera* and *Dendrocalamus hamiltoni*. The concerned District Agriculture Officer may monitor these operations. Chief Principal Conservator of Forests of each State may be associated for identifying the bamboo flowering pockets.

c. Surveillance of rodent incidence : Rodent pest monitoring and forewarning system assumes significance as the farmers are not familiar with the changing pest scenario in their jhum/WRC fields and they remain ignorant until serious damages are caused. Forewarning would help farmers to take timely corrective measures. Once the pockets of bamboo flowering areas are identified in different districts, surveillance teams may be constituted. The rodent pest monitoring may be undertaken uniformly by all states, as per the methodology supplied by Dept of Agriculture and Cooperation, Govt. of India.

d. Human Resource Development and Awareness measures : All the members of the Surveillance teams should be well trained in monitoring and control of rodents in jhum fields and homesteads in the bamboo flowering zones. Hence human resource development for monitoring rodent incidence and their management is to be undertaken to develop core group of master trainers. Such a training programme may be organised jointly by the Central Directorate of Plant Protection and AINP on Rodent Control, Assam Agricultural University, Jorhat/ICAR Research Complex for NEH Region, Barapani. For field level lower extension functionaries at Block/Sub-Divisional Levels, peri-patric training by the Master Trainers of the respective States may also be organized.

Similarly, training for farmers including farmwomen are also to be organized at village and Block levels by the trained officers of the State Departments of Agriculture. Publication of leaflets, installing hordings, production of video films on rodent pest management and utilization of print and electronic mass media is also needed for giving wide publicity. Attempts should be made to develop rodent management squads (of 10-15 youths including women) in each village.

e. Remedial Measures

(i) Local traps are highly effective to kill the invassive rodents . Hence they should be popularized. A provision for incentive may also be made for ensuring 25 bamboo traps per hectare in jhum and WRC areas to control immigrating rodents from forest areas.

(ii) Blanketing method is reportedly used to catch forest dwelling rats in Arunachal Pradesh. Farmers' group makes rat hunt from the periphery of the fields and driving the rats to the center of the field. This method is familiarly called as 'Blanketing method' in East Asian countries. Since the rodent species live in forest areas this method appears to be feasible and could be used, wherever it is possible. The rats captured could be used as table dish.

(iii) Linear Trap Barrier system (LTBS) could be used wherever feasible. Under this method close fencing of the jhum fields with bamboo

barrier is to be erected with intermittent gaps at 15 meters interval. Multiple catch traps may be laid at these intermittent gaps. The immigrating rodents from these gaps into the fields would be trapped and used for consumption purposes.

(iv) Rodenticide treatments are to be undertaken with safer anticoagulant rodenticide on unit hectare/homestead basis. These safer anticoagulants include bromadiolone for jhum/WRC fields and coumatetralyl in homesteads for treating the areas having increasing rodent incidences. The formulation of bromadiolone CB is required to treat peripheries of jhum/WRC fields using hollow bamboo bait stations. However, for treating inaccessible areas in the surrounding forests, if required, bromadiolone RB (cake) should be used. A token provision of zinc phosphide is to be kept in stock to treat areas in cases of emergencies only. All precautions for avoiding any accidental or secondary poisoning in use of such chemicals should be taken.

(v) Efficacy of the rodent control operations shall be evaluated by comparing rodent infestation before and after control operations. These evaluation reports are to be monitored by the respective DAOs.

(vi) Barn owl and Kestrel nest boxes, which can be prepared and placed in and around the crop fields on trial basis. Monitoring and expansion of barn owl nest boxes, conservation of owl habitats and development of public support through education and awareness is urgently required for popularization of bio control of rodents' vis-à-vis biodiversity conservation.

(vii) Bounty system is also used by some State Governments as an incentive for widespread concurrent control of rodents. As per worldwide review made, this system, leads to two major problems (a) Bounties promote inefficient reliance on physical methods of rodent control and (b) it encourage crisis management mentality i.e., acting when rat numbers are high, rather than the more appropriate use of early tactical management. It is always desirable to develop an effective, community based rodent management strategy, rather than going on payment system with rat-tail production. In view of this, bounty payment system is in general be discouraged, if not removed totally. However, during out breaking periods of rats, this may be invoked after fixing time and area so that immigration from uncontrolled areas would be minimized.

Report on Apex level Training on Rodent Pest Management held at Maruteru (A.P.)

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Apex Level Training on Rodent Pest Management was organized by Acharya NG Ranga Agricultural University, in collaboration with National Plant Protection Training Institute, Hyderabad at A.P. Rice Research Instiutute, Maruteru from 21st to 24th February 2006. Dr. M.R. Naidu, Dean of Student Affairs, ANGRAU, Hyderabad presided over the inaugural function on 21st February 2006 and Sri M. Veeraiah Choudary, Hon'ble Member, Board of Management, ANGRAU was the Chief Guest. Dr. S.M. Zaheruddeen, Principal Scientist (Rice) and Head welcomed the dignitaries, participants and resource persons.

The training was attended by 35 officials from six states, two each from Arunanchal Pradesh, Gujarat and Karnataka, four from Kerala, six from Tamil Nadu and nineteen from Andhra Pradesh. The trainees represented State Agriculture Departments, Civil Supplies Corporations, Warehousing Corporations, Research Institutions and Medical and Health Departments. In all thirteen training classes were conducted with emphasis on skill development and practical approaches in Rodent Pest Management. The resource persons included - Dr. S.M. Zaheruddeen, Dr. Nand Kishore and Dr. Deva Prasad from ANGRAU, Dr. R.S. Tripathi and Dr. Vipin Chaudhary from P.C. Cell (Rodent Control), CAZRI, Jodhpur, Dr. AMK Mohan Rao, NPPTI, Hyderabad, Dr. S. Biswas, NICD, Bangalore and Dr. M. Reddy from Pest Control India Pvt. Ltd.

The topics covered through theory classes included (i) Economic importance of rodents in India (ii) Role of rodents and vectors (iii) Breeding biology of rodents (iv) Rodenticides (v) Rodenticide Applications Techniques (vi) Rodent infestation in storage (vii) Diagnosis and damage appraisals (viii) Rodent management in rice and plantation crops and (ix) Recent trends in rodent pest management. The laboratory based exercises were - identification of rodents, breeding profiles, rodent seasonal calender and baiting techniques. Similarly field based exercises in rice fields, coconut orchards and rice mill and storage were also arranged for the trainees.

The training concluded with a brief valedictory session chaired by Dr. N. Hariprasada Rao, RARS, Lam, Guntur. Joint Director of Agriculture from three endemic districts viz., East and West Godavari and Krishna districts also attended this session and addressed the participants. The training report was presented by Dr. S.M. Zaheruddeen. Certificate of participation was distributed to the trainees by honourable guests.

NOTES AND NEWS

1. Regional Meeting on Rodent Pest Management for NEH Region: AINP on Rodent Control organized a two day "Regional Meeting on Rodent Pest Management for NEH Region" at College of Veterinary Sciences and Animal Husbandry, Aizawl from April 21-22, 2006.The meeting reviewed the current situation of rodent problem vis-à-vis bamboo flowering and strategies for effective management of outbreaking rodents synchronizing with gregarious bamboo flowering was evolved. Senior officials of the Department of Agriculture, Health and Forests from the states of Mizoram, Meghalaya, Arunachal Pradesh and scientists from Central Agricultural University, Aizawl and Imphal and rodent experts from ICAR Research Complex for NEH Region, Barapani, National Plant Protection Training Institute, Hyderabad, National Institute of Communicable Diseases, Bangalore and Project Coordinator and scientists of the AINP on Rodent Control held detailed deliberations on the issue. The meeting was held under the guidance of distinguished guests viz., Dr. S..N. Puri, Vice Chancellor, CAU, Imphal, Dr. T.P. Rajendran, Assistant Director General (PP), ICAR, Mr. Ashish Bahuguna, Joint Secretary (PP), Department of Agriculture and Cooperation (Govt. of India) and Shri S.K. Srivastava, Jt. Secretary (S&R), Department of Food (Govt. of India).

2. DAC Meeting on NEH Region: Department of Agriculture and Cooperation, Ministry of Agriculture (Govt. of India) organized a meeting on 26.5.2006 under the chairmanship of Shri A.K. Singh, Additional Secretary (DAC) to develop action plan for rodent management in NEH States. The meeting was attended by Jt. Secretary (PP), Plant Protection Advisor, Rodent Specialist, NPPTI, Director (PP) and Under Secretary (PP) of Ministry of Agriculture (Govt. of India); Project Coordinator (Rodent Control); Assistant Inspector General, MOEF (Govt. of India), Director, Planning Commission (Govt. of India), Jt. Secretary, DONER (Govt. of India), Dy. Director Agriculture (PP) Meghalaya and Principal Resident Commissioners of Meghalaya, Manipur and Nagaland. The decisions taken during the meeting includes:(i) All NE States to ensure close coordination amongst Departments of Agriculture, Horticulture, Health, Forests and other related Departments to tackle the rodent problem, (ii) survey and surveillance to be done regularly, (iii) Funding under Macromanagement scheme of DAC may be utilized for rodent control by NE States (iv) NE States may follow the extensioin strategies for rodent control as finalized by ICAR Regional Meeting held at Aizawl in April 2006 (v) NE States should provide regular feed back to DAC, MOEF and other stake holders on status and implementation of rodent control activities, (vi) MOEF and DAC should synergise rodent control activities at GOI level and Rodent Specialist be associated in the meetings of monitoring committee constituted by MOEF.

3. Special Training on Rodent Management for Railway officials: A two day training on Rodent Management specially designed for railway officials was organized by AINP on Rodent Control at Jodhpur on September 17-18, 2006. Before organizing the training the rodent problem in and around Jodhpur Railway Station was scientifically studied, analyzed and accordingly, the contents of the training were structured. Practical demonstration on diagnostics of the problem, bait preparation and application in burrows and bait station and trapping exercises were also conducted at the station premises.

RECENT LITERATURE

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Apex Level Training on Rodent Pest Management at APRRI, Maruteru (A.P.) from 21-24 Feb., 2006

Field based exercise during Apex Level Training at Maruteru

Village Level Rodent Control campaign organised by Govt. of A.P. in East Godawri District

Contributions for inclusion in the Newsletter may please be forwarded alongwith 1 - 2 good black and white / colour photographs to :

Project Coordinator,
AINP on Rodent Control,
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