

## Subject Index

- Acid subtractors, glc 67  
Actionable levels, insecticides in milk 90 ff.  
Acutumine 133, 134  
Agricultural Chemicals Control Law 2 ff.  
Aldrin 6, 22, 29, 51, 91, 94, 108, 115  
— actionable level 90  
— in milk 101 ff.  
Alfalfa and alfalfa hay 44, 74-78, 82, 85, 96-98, 100, 103, 105, 107, 108, 110-116  
— dieldrin in 91  
Algae, chlorine compounds in 130  
Allylidene acetate 6  
Aluminum phosphide 6  
Aminotriazole 51  
Animals and auxin herbicides 37 ff.  
Apple pomace 100  
Apples 7-9, 74, 85  
Arsenic compounds, organic (see also Calcium and Lead arsenates) 6, 9  
Auxin herbicides and aquatic organisms 52  
— herbicides and egg production 44-46  
— herbicides and milk production 44  
— herbicides and nitrates of plants 46 ff.  
— herbicides and plant composition 46 ff.  
— herbicides and plant palatability 46 ff.  
— herbicides, hazards from 37 ff.  
— herbicides, residues in foods 40, 41  
— herbicides, toxicity to animals 41 ff.  
— herbicides, toxicity to bees and other insects 48 ff.  
— herbicides, toxicity to fish 50 ff.  
— herbicides, toxicity to soil animals 49 ff.  
Azinphos methyl 20, 21, 24, 26, 28, 29  
Barley 104, 105, 114  
Bayer 54362 6  
Beans 49, 129, 135  
Beef products, organochlorine insecticides in 89 ff.  
Bees and auxin herbicides 48 ff.  
Beets 104, 113  
BHC 7-9, 92, 94  
— and lindane in milk 114  
Binapacryl 79, 84  
Cabbages 74, 113, 129  
Calcium arsenate 9  
Caldariomycin 129, 130  
Calves, see Cattle  
Carbamates, difficulty of glc 80  
Carbaryl 79, 84, 85  
Carbofuran 74 ff.  
Carbophenothion 20, 23-27, 29  
Carp 5  
Carrots 129  
Cattle 42-47, 89 ff.  
Cereals, herbicides on 37 ff.  
Chickens 41, 42, 44  
Chloramphenicol 129, 135  
Chlordane in milk 116  
Chlorine as a micronutrient 128 ff.  
— biochemistry of 129  
— contents of plants 129  
— in depsides and depsidones 130  
— in photosynthesis 129  
— in plants 127 ff.  
— organically bound in plants 127 ff.  
Chlorotetracyclin 129  
Cholinesterase 19 ff.  
Clover 103, 104, 112, 115  
— dieldrin in 91  
Co-Ral 20, 24, 26, 29  
Corn 85, 90, 101, 104, 105, 112, 114  
— stover 75, 82, 101  
Coulometric titration cell 68, 69  
Cows, see Cattle  
Cucumbers 8, 9, 47, 48  
2,4-D 6, 37-53  
— in animal tissues 42  
— in ground water and streams 50, 51  
— poisoning symptoms 39, 40

- Dalapon 51  
 Daphnia 5  
 2,4-DB 37, 41, 43, 44, 52  
 — conversion to 2,4-D 43  
 DDD, see TDE  
 DDE 90, 95, 96, 98  
 DDT 6-9, 22, 93, 102, 115  
 — actionable level 90, 96, 98  
 — in milk 94 ff.  
 DDVP 20, 24, 26, 29  
 Delnav, see Dioxathion  
 Demeton 20, 21, 24, 26, 29  
 Designated pesticides 5  
 Diazinon 6, 20, 23, 24, 26, 27, 29  
 Diazoxon 20, 24, 27, 29  
 Dicofol 94  
 — in milk 117  
 Dicryl 85  
 Dieldrin 4-6, 91, 92, 94, 101-105, 108,  
 115  
 — actionable level 90  
 — in milk 105 ff.  
 Dimethoate 20, 24, 29  
 Dioxathion 20, 24, 29  
 Diquat 51  
 Disulfoton 6  
 Di-Syston 20, 23, 24, 27, 29  
 DNBP salt 6  
 DNOC salt 6  
 DNSBP 79, 84, 85  
 Dogs 41
- Eggs 44  
 Endosulfan 6  
 Endrin 4-6, 92, 94  
 — actionable level 90  
 — in milk 108 ff.  
 EPN 6, 20, 23, 24, 26, 27, 29  
 Ethion 20, 23, 24, 26, 27, 29, 30, 32  
 Eupachlorin and related compounds 133  
 Extraction of pesticides from water  
 25 ff., 32 ff.  
 — recoveries from water 26
- Fish 3-5, 11  
 — evaluation of toxicants against 50  
 Fishery damages, preventing 4  
 Flour 130  
 Fluoroacetamide 6  
 Food-additive residues 1  
 Food Sanitation Law 2, 7  
 Forage crops 90, 96, 99, 102, 107, 110,  
 116  
 — DDT in 91  
 Fungi, chlorine compounds in 129
- Gas chromatography 19 ff., 63 ff., 94 ff.,  
 103, 128  
 Grains, DDT in 91  
 Grapes 8, 9, 85  
 Grasses, pasture 90, 96, 98, 99, 106,  
 110-112, 115, 116  
 Griseofulvin 129, 135  
 Guinea pigs 41  
 Guthion, see Azinphos methyl
- Hair, mercury in 11  
 Halogens, distribution on earth 129  
 Hay, see Alfalfa  
 Heptachlor 91, 93, 94, 109, 115  
 — actionable level 90  
 — and its epoxide in milk 110 ff.  
 — epoxide 91, 92, 94, 109  
 — epoxide actionable level 90  
 Horses 43, 44  
 Hydrogen cyanide 6  
 — cyanide in Sudan grass 47  
 — cyanide in wild cherry 46
- Jaconine and related compounds 131,  
 132  
 Japanese Agricultural Chemicals Con-  
 trol Law 2 ff.  
 — consumption of pesticides 1  
 — fisheries 4 ff.  
 — Food Sanitation Law 2, 7  
 — labeling requirements 3, 4  
 — Law for Control of Pesticides 2  
 — Law for Control of Poisonous and  
 Powerful Agents 2  
 — laws and regulations 1 ff.  
 — minimum intervals 8, 9  
 — pesticide classification 5  
 — pesticide production 6  
 — Poisonous and Deleterious Substance  
 Control Law 2, 5 ff.  
 — registration requirements 3, 4, 6  
 — residue problems 1 ff.  
 — residue regulations 7  
 — tolerances 2, 7, 8  
 — toxicity requirements 3
- Kayaace 6  
 Kelthane, see Dicofol
- Lambs, see Sheep  
 Law for Control of Pesticides 2  
 — for Control of Poisonous and Power-  
 ful Agents 2  
 Lead arsenate 6-9  
 Lecithin chlorides 128

- Lettuce 74, 129  
 Lichens, chlorine compounds in 130  
 Lindane 8, 9, 94  
   — actionable level 90  
  
 Maize 47, 48  
 Malathion 6, 20, 21, 23-27, 29  
 Man and auxin herbicides 37 ff.  
 MCPA 37-45, 48, 49, 51, 52  
 MCPB 37, 41, 43, 44  
 Mecoprop 37, 38, 41, 44, 49  
 Mercury absorption 10  
   — compounds 6, 8 ff.  
   — in rice 8 ff.  
   — translocation 10  
 Methoxychlor 91, 93, 94  
   — actionable level 90  
   — in milk 115  
 Methyl demeton 6  
   — parathion 6, 20, 24, 27, 29  
   — Trithion 23  
 Mevinphos 20, 24, 26, 29, 82  
 Milk 85  
   — aldrin in 101 ff.  
   — BHC and lindane in 114  
   — chlordane in 116  
   — 2,4-D in 41, 43  
   — 2,4-DB in 41, 43  
   — DDT in 94 ff.  
   — dicofol in 117  
   — dieldrin in 105 ff.  
   — endrin in 108 ff.  
   — heptachlor and its epoxide in 110 ff.  
   — methoxychlor in 115  
   — organochlorine insecticides in 89 ff.  
   — rates of residue excretion in 91-94  
   — residue plateaus in 91 ff.  
   — toxaphene in 115  
 Minamata disease 11  
 Minimum intervals 8, 9  
 Mitemate 6  
 Mud, 2,4-D in 40, 52  
   — ethion in 29, 32  
   — extraction 27  
 Mussels 52  
  
 Naled 82  
 New York State water network system  
   18, 19  
 Nicotine 6  
 Nitrates and nitrites in plants 47  
 Nitrogen glc detector 63 ff.  
   — glc detector, chemistry 64, 65  
   — glc detector, columns and packing  
     80-82  
   — glc detector for residues 73 ff.  
   — glc detector, gases to use 83 ff.  
   — glc detector, instrumentation 64, 65  
   — glc detector, interferences 74  
   — glc detector, operation 70 ff.  
   — glc detector, pyrolysis and tube 65-  
     67  
 Nitrophenol 28, 31, 32  
  
 Oats 49, 50, 104, 105, 114  
 Organobromine compounds in algae 130  
 Organochlorine compounds naturally in  
   plants 127 ff.  
   — insecticides, acute toxicities 39  
   — insecticides in beef products 89 ff.  
   — insecticides in milk 89 ff.  
   — insecticides in plants 89 ff.  
   — pesticides in water 18  
 Organiodine compounds in algae 131  
 Organophosphorus pesticides, analysis  
   19 ff.  
   — pesticides, field test 19 ff.  
   — pesticides in water, determination  
     17 ff.  
   — pesticides, retention times 24  
 Oysters and 2,4-D 53  
  
 Paraoxon 20, 24, 27-29, 31, 32  
 Paraquat 50, 51  
 Parathion 4, 6-9, 20, 21, 23-27, 30-32,  
   79, 84, 85  
   — hydrolysis products 27  
   — stability in water 27  
 Peaches 74, 85  
 Peanuts and hay 99, 104, 105, 108, 113,  
   114  
 Pears 74  
 Pea silage 90, 97, 99, 101  
 Pentachlorophenol 4-6, 40, 51  
 Perch, toxicity of auxins to 51  
 Phenylmercury acetate 8 ff.  
 Phorate 20, 21, 23, 24, 26, 27, 29  
 Phoratoxon 20, 24, 25, 27, 29  
 Phosdrin, see Mevinphos  
 Phosphine, see Aluminum phosphide  
 Phosphorus 6  
   — detector 20 ff.  
 Figs 42, 44-46  
 Plums 74  
 Poinsettia 48  
 Poisonous and Deleterious Substance  
   Control Law 5 ff.  
 Potatoes 99, 104, 107, 113-117  
 Prunes 85

- Ragwort 130  
 Rats 41, 42, 45  
   — mercury in 11  
 Red clover (see also Clover) 48  
 Residue analyses, interferences from or-  
   ganochlorine compounds 127 ff.  
   — regulations, Japan 7  
 Rice 4, 6, 8 ff., 49, 85  
   — mercury in 8 ff.  
 Roach, toxicity of auxins to 51  
 Ronnel 20, 23, 24, 26, 27, 29  
 Ronneloxon 20, 24  
 Rutabagas 104, 113
- Sceleratinic acid 132  
 Sheep 43-46  
 Shellfish 4  
 Simazine 51  
 Sodium fluoroacetate 6  
 Soil 85  
   — arthropods, effects of auxins on 49 ff.  
   — arthropods, effects on auxins 49 ff.  
 Sorghum 116  
 Soybeans and hay 99, 104, 105, 113,  
   114  
 Straws 85, 90, 104, 109, 112, 113  
 Sugar beets 47, 107, 113, 116, 129  
 Sunfish 43  
   — toxicity of auxins to 52  
 Systox, see Demeton
- 2,4,5-T 37-39, 41-44, 46, 51, 52  
 2,3,6-TBA 37, 38, 41, 43-45, 52
- TCA 51  
 TDE 90, 95, 96, 98  
 Telodrin 5, 6  
 TEPP 6  
 Thimet, see Phorate  
 Thin-layer chromatography 27 ff., 80  
 Timothy 115  
 TMCS 82  
 Tolerances, Japan 2, 7, 8  
   — milk 90  
 Tomatoes 8, 9, 135  
 Toxaphene 94  
   — in milk 115  
 Trithion, see Carbophenothion  
 Trout, toxicity of pesticides to 51  
 Turkeys 44  
 Turnips and tops 113, 116
- Vascular plants, chlorine compounds in  
   131 ff.
- Warning colors 6  
 Water, 2,4-D in 50, 51  
   — extraction of pesticides from 17 ff.,  
   32 ff.  
   — organochlorine pesticides in 18  
   — organophosphorus pesticides in 17 ff.  
 Wheat (see also Grains) 130  
 Wildlife and auxin herbicides 37 ff.
- Zectran 85  
 Zineb 6

### **Manuscripts in Press**

The regulation of pesticides in Italy. By P. de Pietri-Tonelli.

Polycyclic aromatic hydrocarbons (polynuclears) in smoked foods. By D. J. Tilgner and H. Daun.

On the problem of the harmful effect of DDT and its mechanism of action. By Yu. S. Kagan, S. I. Fudel-Ossipova, B. J. Khaikina, U. A. Kuzminskaya, and S. D. Kovtun.

The metabolism of diene-organochlorine (cyclodiene) insecticides. By G. T. Brooks.

Insecticide residues in California citrus fruits and products. By F. A. Gunther.

Environmental decontamination of pesticide residues: Symposium of the American Chemical Society, Atlantic City, September 1968. (Special volume, No. 29)