[INIS Database] 食用肉への放射性核種移行に関する文献リスト(Radionuclide Migration in Domestic Animals)

Title	Author	Year	Source	RecordType	Abstract	Language	CountryOrg	RefNum
Report on international round table conference 'Accidental radiation contamination of food of animal origin' VolII (Working papers)	World Association of Veterinary Food Hygienists, Institute of Veterinary Medicine, Robert von Ostertag-Institute, Berlin (Germany)	1986	1986; 214 p.; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069; Refs, figs, tabs;	Report	The World Association of Veterinary Food Hygienists (WAVFH) held an international round table conference in Stockholm, Sweden, January 26-29, 1987 The topic of the conference was 'Accidental Radiation Contamination of Food of Animal Origin' The agenda was divided into three major topic areas: 1 Ecological Science 2 Veterinary Science - Live Animals and 3 Veterinary Science - Food of Animal Origin Experts and delegates from member countries presented papers, participated in discussions and workshops and produced a multidisciplinary report covering the topic areas Two volumes were produced one a collection of all papers presented, and the other a compilation of the proceedings from each of the topic workshops In order to rapidly distribute the Association's information to members, papers and other information were collated and disseminated as presented to the conference participants	English	International Atomic Energy Agency (IAEA)	36080750
Guide for agriculture management in conditions of the soils radioactive contamination of the Republic of Belarus for a 1997-2000	Bogdevich, IM; Inst of Soil Science and Agrochemistry, Minsk (Belarus); Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus); Ministehrstva sel'skai gaspsdarki i kharchavannya Rehspubliki Belarus', Minsk (Belarus); Akadehmiya agrarnykh navuk Belarusi, Minsk (Belarus) Inst of Soil Science and Agrochemistry	1997	Nov 1997; 77 p.; INIS-BY--008; 13 tabs., 17 appendixes;	Miscellaneous	The researches have shown that behaviour of radionuclides in the soil - plant system continued to change for a 1992-1996 The further decrease of mobility of cesium 137 due to transition it in unexchange - absorbed state and increase of mobility of strontium 90 is established It has caused changes of biological availability of radionuclides In comparison with 1991 the availability of cesium 137 for plants has been decreased in 1,5 times in average, whereas of strontium 90 has been increased on 5-25% In this connection there was a necessity of amendment of transition factors for cesium and strontium from soils to agricultural cultures The introduction of the new republican tolerance dose levels for strontium 90 and cesium 137 in foodstuff and drinking water (RTDL-96), which for cesium 137 on a number positions are much below former (RTDL-92), as well as an increase of mobility of strontium 90 in soil requires the further perfection of a complex of protective measures directed on manufacture of agricultural production adequate radiation safety in the radioactive contaminated zones The results of researches of the both institutes of Agrarian Sciences Academy and regional design chemization stations were reflected in the present manual The system of measures directed on maintenance of agricultural production manufacture in according to tolerance levels of the radionuclides contents for both a public and personal (farmer) agriculture is specified Are considered the problems of organization of fodder base, feature of operation of reclamation projects on the drained grounds and both fruit and vegetable growing on the contaminated territories Are specified the plants protection measures against pests, illnesses and weeds for both grain and tilled cultures, list of pesticides which are permitted to application on soils with contamination density more 15 Ci/km"2 Are established the factors of radionuclides transition to grasses on water-logged grounds, as well as to vegetables, garden fruit and berries, differentiated in depending on granulometric structure and acidity of soils and contents of exchange potassium The factors of radionuclides transition from daily ration to cattle-breeding production, exemplary feeding rations of cattle and young fat	Russian	Belarus	30006824
Pathways for the transfer of radionuclides from nuclear power reactors through the environment to man	Blanchard, RL; Kahn, B; Environmental Protection Agency, Cincinnati, Ohio (USA)	1972	International symposium 'Radioecology applied to the protection of man and his environment', Rome, Italy, 7-10 September 1971; May 1972.; Radioecology applied to the protection of man and his environment.; Rome, Italy.; 7 Sep 1971.; EUR--4800(vol.1).;	Report			Commission of the European Communities (CEC)	4053707

Radionuclide concentrations in some cattle and sheep from West Cumbria	Popplewell, DS; Ham, GJ; Savory, TE; National Radiological Protection Board, Harwell (UK); Bradford, WR; Ministry of Agriculture, Fisheries and Food, Norwich (UK) Food Science Div	1981	(Jul 1981).; (no.41) p. 20-23.;	Journal	Tables are presented of concentrations of "2"3"8Pu, "2"3"9pu, "2"4"0Pu, "2"4"1Am, "1"3"7Cs, and "9"0Sr found in various tissues of three cows and three sheep reared on coastal and estuarine pastures contaminated by seaborne and windborne radioactivity in the region of the British Nuclear Fuels Ltd reprocessing plant at Windscale The levels were well below those which could be regarded as acceptable for long-term continuous intake (UK)		United Kingdom	12632377
Radiation protection for human population	Bogdevich, IM; Inst pochvaznawstva i agrakhimii, Minsk (Belarus) Inst of Soil Science and Agrochemistry; Kenigsberg, YaEh; Minenko, VF; Mrochek, AG; Navukova-dasledchy klinichny inst radyyatsyjnaj medytsyny i ehndakrynalogii, Minsk (Belarus) Clinical Inst of Radiation Medicine and Endocrinology; Rolevich, IV; Skurat, VV; Sharovarov, GA; Natsyyanal'naya akadehmiya navuk Belarusi, Minsk (Belarus) Inst radyyaehkalagichnykh prablem Inst of Radioecological Problems	1998	Konoplya, E.F.; Natsyyanal'naya akadehmiya navuk Belarusi, Minsk (Belarus). Inst. radyyabiyalogii (Inst. of Radiobiology); Rolevich, I.V.; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus) (Ministry for Emergencies); Natsyyanal'naya akadehmiya navuk Belarusi, Minsk (Belarus). National academy of sciences; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus). Ministry for Emergencies; Scientific decision of the Chernobyl accident problems (results of 1997); 192 p.; Dec 1998; p. 10-53; INIS-BY--011;	Miscellaneous	The purpose of researches is development of methods and means of reduction of radiation risk caused by the Chernobyl accident consequences by means of decrease of both individual and collective dozes by realization of special protective measures The reconstruction of average collective accumulated irradiation dozes of the inhabitants of the contaminated populated localities of Belarus is carried out the forecast of development of radiation induced oncologic diseases is given The laws of formation of annual irradiation dozes are investigated the prevailing role of internal irradiation dozes in formation of total dose loadings is detected On this basis a number of practical projects directed on creation of effective land tenure and decrease of radioactive contamination of agricultural production, as well as decontamination technologies and radioactive waste management are executed Are given the results of researches carried out in Belarus in 1997 on the following directions: dose monitoring of the population, estimation and forecast of both collective irradiation dozes and risks of radiation induced diseases development and optimization of a complex of measures for effective land use and decrease of radioactive contamination of agricultural production in order to reduce irradiation dozes of the population development of complex technologies and means of decontamination, treatment and burial of radioactive wastes development and ground of the measures for increase of radiation protection of the population of Belarus during of the reducing period after the Chernobyl accident development of complex system of an estimation and decision-making on problems of radiation protection of the population living on contaminated territories	Russian	Belarus	30009288
Report on international round table conference 'Accidental radiation contamination of food of animal origin' Vol I	World Association of Veterinary Food Hygienists, Institute of Veterinary Medicine, Robert von Ostertag-Institute, Berlin (Germany)	1986	1986; 42 p.; International round table conference 'Accidental radiation contamination of food of animal origin'; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--068; 26 refs, 4 tabs;	Report	The World Association of Veterinary Food Hygienists (WAVFH) held an international round table conference in Stockholm, Sweden, January 26-29, 1987 The topic of the conference was 'Accidental Radiation Contamination of Food of Animal Origin' The agenda was divided into three major topic areas: 1 Ecological Science 2 Veterinary Science - Live Animals and 3 Veterinary Science - Food of Animal Origin Experts and delegates from member countries presented papers, participated in discussions and workshops and produced a multidisciplinary report covering the topic areas The recent accidental release of radioactive substances into the environment from the Chernobyl accident, demonstrated the need for veterinary, ecological, physical and medical sciences to be prepared to respond to an incident in order to protect the environment, food chain, other agricultural assets and humans from the adverse effects of radionuclides Several presentations suggested that even with the best technologies, national and regional commitment, and relatively unrestricted resource levels, nuclear incidents can cross international boundaries and can contaminate the environment to the extent that the integrity of various food and water supplies can be at risk Speakers and subsequent discussers tended to concentrate on the issues associated with lessening future environmental impacts if similar types of incidents should occur again	English	International Atomic Energy Agency (IAEA)	36080749

Relation between the deposition of long lived fission products and the total dietary ingestion	Strackee, L; Mattern, FCM	1973	Chemical and radionuclide food contamination; 1973.; MSS Information Corp.; New York.;	Book			United States	5107447
Analysis of natural systems	Anon	1974	Pacific Northwest Laboratory annual report for 1974 to the USAEC Division of Biomedical and Environmental Research. Part 2. Ecological sciences; Dec 1974.; BNWL--1950(Pt.2).;	Report			United States	6196273
Distribution of Sr-90, Cs-137 and Ra-226 in the ecological cycle of the central Yugoslavia mountainous region	Milosevic, Z; Horsic, E; Kljajic, R; Institute of Radiology of the Veterinary Medicine Faculty, Sarajevo (Yugoslavia)	1982	Radiological protection - advances in theory and practice. Proceedings of the 3. international symposium held in Inverness, Scotland, 6-11 June 1982; 1982.; p. 106-109.; 3. International symposium on radiological protection - advances in theory and practice.; Inverness, Scotland (UK).; 6 - 11 Jun 1982.; Society for Radiological Protection.; Berkeley (UK).;	Book	The distribution of Sr-90, Cs-137 and Ra-226 in the animal production cycle was studied Samples of ground, grass, beef and bones, milk and cheese, taken from the mountainous part of central Yugoslavia, were analysed The discrimination factors and concentration factors of the examined radionuclides were calculated (author)		United Kingdom	14737215
Transfer factors feed/meat in bovine and pigs	Wagner, H; Mirna, A; Bundesanstalt fuer Fleischforschung, Kulmbach (Germany, FR) Isotopen Lab	1981	Bundesministerium des Innern, Bonn (Germany, F.R.); Arbeitsgemeinschaft fuer Umweltfragen e.V., Bonn (Germany, F.R.).; Radioecology symposium; 628 p.; 1981.; p. 184-196.; Radioecology symposium.; Stuttgart (Germany, F.R.).; 15-16 Oct 1981.; Copy held by Fachinformationszentrum Energie, Physik, Mathematik G.m.b.H., Eggenstein-Leopoldshafen (Germany, F.R.).;	Miscellaneous	Meat samples of young bulls and pigs have been selected in various parts of the FRG and examined for their content of Cs-137, Sr-90, and Pb-210 The data determined by measurement for each of the location-specific samples revealed a transfer factor for Cs-137 ranging between 3 x 10"-"2 and 75 x 10"-"2 For Sr-90, agreement between measured data and the theoretical value given in the General Instructions and Standard Values for Calculation is found, whereas for Pb-210, the relevant values differ by two decimal exponents, so that the transfer factor is to be corrected (DG/HP)	German	Germany	17006370

Feed/meat transfer factor determination	Hoepfner, U; Institut fuer Energie- und Umweltforschung eV, Heidelberg (Germany, FR)	1981	Bundesministerium des Innern, Bonn (Germany, F.R.); Arbeitsgemeinschaft fuer Umweltfragen e.V., Bonn (Germany, F.R.).; Radioecology symposium; 628 p.; 1981.; p. 197-225.; Radioecology symposium.; Stuttgart (Germany, F.R.).; 15-16 Oct 1981.; Copy held by Fachinformationszentrum Energie, Physik, Mathematik G.m.b.H., Eggenstein-Leopoldshafen (Germany, F.R.).;	Miscellaneous	The transfer of cesium from the feed to bovine meat is taken as an example to discuss natural environmental conditions and their effects on the determination of the transfer factor Criteria for estimating the validity of experimentally determined transfer factors are given and used for a critical evaluation of significant literature data The evaluation presented in this report is not a merely statistical evaluation of transfer data, indicating one single value as the correct one (sometimes within a certain margin), but rather scans the data available for incertainties and drawbacks of the experimental methods applied, finally stating a range of variation within which transfer factors can be considered to be correct (orig/DG)	German	Germany	17006371
Measurements of transfer coefficients for "1"3"7Cs, "6"0Co, "5"4Mn, "2"2Na, "1"3"1I and "9"5"mTc from feed into milk and beef	Voigt, G; Henrichs, K; Proehl, G; Paretzke, HG; Gesellschaft fuer Strahlen- und Umweltforschung mbH Muenchen, Neuherberg (Germany, FR) Inst fuer Strahlenschutz	1988	(May 1988).; v. 27(2) p. 143-152.;	Journal	The transfer in cattle of the radionuclides "1"3"7Cs, "6"0Co, "5"4Mn, "2"2Na, "1"3"1I and "9"5"mTc was studied experimentally to determine transfer coefficients from feed to milk and meat Special interest was kept on normal feeding and maintenance conditions used in Germany The radionuclides were incorporated into fodder plants through root uptake and thus available in a chemical form resulting from the contamination of agricultural soil This permitted realistic simulation of the soil-plant-animal food chain The equilibrium transfer coefficients for milk were calculated to be "2"2Na: 0016#+-#0002 d/l, "6"0Co: #<=# 00002 d/l, "5"4Mn: #<=# 00005 d/l, and "1"3"7Cs: 00022#+-#00002 d/l The equilibrium transfer coefficients for meat were calculated to be "2"2Na: 001#+-#0002 d/kg, "6"0Co: #<=# 000013 d/kg, "5"4Mn: #<=# 00005 d/kg, and "1"3"7Cs: 00062#+-#00006 d/kg A single dose of "1"3"1I was orally administered three times in the chemical form of iodide Models were applied to obtain parameters for a quantitative description of the iodine metabolism The equilibrium transfer factor for "1"3"1I in this chemical form to milk was calculated to be 0009#+-#00014 d/l For "9"5"mTc only an upper limit of the transfer factor of 17 10"-"4 d/l		Germany	19050115

Development and testing of a revised dynamic model of radiocaesium transfer to sheep tissues	Crout, NMJ; Department of Physiology and Environmental Science, University of Nottingham, Sutton Bonington LE12 5RD (United Kingdom); Beresford, NA; Institute of Terrestrial Ecology, Merlewood Research Station, Grange-over-Sands, Cumbria LA11 6JU (United Kingdom); Howard, BJ; Institute of Terrestrial Ecology, Merlewood Research Station, Grange-over-Sands, Cumbria LA11 6JU (United Kingdom); Mayes, RW; Macaulay Land Use Research Institute, Craigiebuckler, Aberdeen AB9 2QJ (United Kingdom); Assimakopoulos, PA; Nuclear Physics Laboratory, The University of Ioannina, Gr-453 10 Ioannina (Greece); Vandecasteele, CM; CEN/SCK, Mol (Belgium)	1996	Radiation and Environmental Biophysics.; (Feb 1996).; p. 19-24.; v. 35(1).;	Journal	The model of radiocaesium transfer to sheep presented by Galer et al [1] provides reliable predictions only for sheep of a similar body weight to those used in the development of the model (approximately 30 kg) To extend the applicability of the model, it was necessary to re-parameterise it in terms of activity concentrations in tissues rather than total activities within them (although for gut compartments the use of activity has been retained) The rate coefficients for the new model have been estimated by fitting the model to the data used by Galer et al [1] which was derived from a single ''calibration'' experiment The new model was found to account for 94% of the observed variation in the data (n = 42), a result similar to that obtained by Galer et al [1] The model has also been tested against data not used in its development but obtained from four separate experiments undertaken by three different laboratories Good agreement between the predictions of the new model and observations was found for most circumstances and for several breeds of sheep with different body weights It is concluded that the new model provides a useful dynamic description of radiocaesium transfers to the tissues of sheep of different breeds and under different contamination scenarios (orig)	English	Germany	27035246
GRECA Review of Chernobyl Data on Transfer to Animal Products	Nair, S; Berkeley Nuclear Laboratories, Central Electricity Generating Board, Berkeley (United Kingdom); Iijima, T; Department of Nuclear Safety Evaluation, Japan Atomic Energy Research Institute, Tokai-mura Naka-gun, Ibaraki-ken (Japan)	1988	Proceedings of the first part of a joint OECD(NEA)/CEC workshop on recent advances in reactor accident consequence assessment; Feb 1988; p. 170-200; Joint OECD(NEA)/CEC workshop on recent advances in reactor accident consequence assessment; Rome (Italy); 25-29 Jan 1988; NEA-CSNI-R--1988-145-V.1; 2 refs.;	Report	This paper presents results of a review carried out by GRECA of Chernobyl fallout data from the OECD countries relevant to transfer to animal products Two groups of data are considered: data applicable to a large number of different locations within a country obtained from the national monitoring programmes, and detailed data for a few locations obtained by selected organisations or research institutes for model validation purposes Origins of the data included in this review are first summarized, and the results of a preliminary evaluation is presented for milk and various kinds of meat (mutton and lamb and others) Conclusions concerning transfer factors and uptakes are given, while an estimation of feed-to-milk transfer factor with temporally variable intake and milk concentration of a radionuclide is presented in appendix	English	Nuclear Energy Agency of the OECD (NEA)	42027059
Radioactive fission product "1"3"7Cs in mushrooms in W Germany during 1963--1970	Grueter, H	1973	Chemical and radionuclide food contamination; 1973.; MSS Information Corp.; New York.;	Book			United States	5105778
Critique of the food pathways model in the HERMES code	Smith, OL; Booth, RS; Oak Ridge National Lab, Tenn (USA)	1974	Nov 1974.; 29 p.; ORNL-TM--4373.;	Report			United States	6190557
The estimation of the transfer of radionuclides from the ground into animal food (meat)	Franke, B; Hoepfner, U; IFEU Inst fuer Energie- und Umweltforschung Heidelberg eV (Germany, FR)	1978	1978.; 50 p.; Available from Fachinformationszentrum Energie, Physik, Mathematik, Karlsruhe, Germany, F.R.;	Miscellaneous	It is shown in the introductory chapters of this literature study that the values recommended in the 'Allgemeinen Berechnungsgrundlagen' (general fundamental calculations) of the SSK have arisen from a scientifically doubtful derivation method of concentration data of stable elements Other tables, on the other hand, give transfer factors mainly based on the experimentally determined results of renouned groups of scientists The values for the transfer factors food - meat are higher than the SSK values for the nuclides (radiocesium, radiostrontium, radioiodine, plutonium) considered in this study in these tables The thorough literature survey described in this study confirms the large difference between the estimated SSK values and the data named in the tables mentioned or in the primary literature (orig/MG)	German	Germany	12591694

Field investigations of the uptake of radionuclides by a dairy herd	Dodd, NJ; National Radiological Protection Board, Harwell (UK)	1983	(Nov 1983).; (no.55) p. 8-9.;	Journal	A brief outline is given of a current study of the transfer of radionuclides in the pasture-cow-milk pathway at a farm situated close to the Sellafield nuclear installation Samples collected include airborne dust, rainwater, herbage, supplementary feed, milk and tissue, bone and organs from slaughtered cows Data collected so far have been used to derive coefficients that quantify the transfer of "9"0Sr, "1"3"7Cs, "2"3"9Pu and "2"4"1Am to meat and milk (UK)		United Kingdom	15024602
Migration of zinc-65 in trophic chain of sheep and rationing of its intake	Korneev, NA; Sirotkin, AN; Rasin, IM; Abramova, TN; Vsesoyuznyj Nauchno-Issledovatel'skij Inst Sel'skokhozyajstvennoj Radiologii, (USSR)	1986	(Dec 1986).; (no.12) p. 25-27.;	Journal	Quantitative characteristics of zinc-65 migration in the tropic chain of sheep are calculated by the experimental data Criteria and principles of calculation of permissible concentrations of radionuclide in some nature environments, animal feeds and mutton are suggested	Russian	USSR	18073022
Sensitivity analysis of model concerning consumption of products of livestock watered with water contaminated with liquid effluents from WWER-440 nuclear power plant	Mitro, A; Hanusik, V; Ustav Radioekologie a Vyuzitia Jadrovej Techniky, Kosice (Czechoslovakia)	1986	(1986).; v. 9(3) p. 177-185.;	Journal	Tests of important parameters of a food chain model showed that in the assessment of the radiation burden due to milk and meat contaminated as a result of livestock watering, attention should be devoted to the radionuclide content of water and the selection of the values of the following parameters: effective dose equivalent due to specific radionuclides, human consumption of milk, livestock water consumption, feed-milk transport coefficients for specific radionuclides, meat consumption, feed-meat transport coefficients, and the biological half-life of radionuclide excretion by livestock The parameters relating to milk consumption are more significant that the meat consumption related parameters (Ha)	Slovak	Czechoslovakia	18098955
Transfer to farm animals (ruminants) and their products of Cs-134, Cs-137 and I-131 after the Chernobyl accident	Vankerkom, J; Van Hees, M; Vandecasteele, CM; Colard, J; Culot, JP; Kirchmann, R; Centre d'Etude de l'Energie Nucleaire, Mol (Belgium)	1988	Environmental impact of nuclear accidents; Sep 1988.; p. E111-E119.; 4. Cadarache International Symposium on Radioecology.; Cadarache (France).; 14-18 Mar 1988.; Section Documentation - CEN/Cadarache.; Cadarache (France).; Contract B16-B-242-B.;	Book	The transfer of the main radionuclides ("1"3"4Cs, "1"3"7Cs and "1"3"1I) deposited on pastures after the Chernobyl accident to farm animals and their products has been studied in cows and sheep at the experimental farm of the CEN/SCK The evolution of the transfer of these radioisotopes from grass to milk was followed in open field conditions during the first months after deposition The ecological half-lives in grass and milk were determined For iodine they amount to 46, 53 and 58 d for grass, sheep and cow's milk, respectively for radiocaesium they respectively amount to 33, 80 and 87 d The concentrations of all of the three radionuclides measured in sheep's milk were higher than in cow's milk, by a factor 14 for iodine and by a factor 2 for caesium Grass-to-milk transfer coefficents were estimated The bioavailability for cows of the Chernobyl radiocaesium has been compared under controlled conditions to the bioavailability of CsCl The transfer coefficient of Caesium as CsCl from grass to milk is about 0006 d/l From the results obtained it appears that the availability of the Chernobyl Cs on hay harvested mid-June 1986 might be slightly lower than that of CsCl The transfer of the Chernobyl radiocaesium from grass to sheep meat estimated under field conditions was higher by a factor 2 in young animals than in adult animals The time dependent evolution of the Caesium contamination in various organs of sheep is best fitted as a sum of two exponential functions the ecological half-lives in the two compartments were 10 d and 150 to 200 d, respectively		France	20022413
Radionuclide contamination of animal products	Wirth, E; Kaul, A; Bundesgesundheitsamt, Neuherberg (Germany, FR) Inst fuer Strahlenhygiene	1989	Residues in food derived from animals; 1989.; p. 145-177.; Parey.; Berlin (Germany, F.R.).;	Book	This chapter briefly deals with the physical fundamentals of radioactivity and the radiobiological effects of ionizing radiation and radioactive substances and then exclusively discusses the food chains as major exposure pathways Particular emphasis is placed on the radionuclides "3H, "1"4C, "9"0Sr, "1"3"7Cs, and plutonium Suitable measures for reducing the contamination of domestic animals are mentioned (orig/MG)	German	Germany	21052917

Migration properties of radionuclides released from Chernobyl NPP in agriculture and radioecological aspect	Petryaev, EP; Sokolik, GA; Ivanova, TS; Morozova, TK; Ovsyannikova, SV; Pishchalov, VN; Belorusskij Gosudarstvennyj Univ, Minsk (Belarus)	1991	Vestsi Akademii Navuk BSSR. Seryya Fizika-Ehnergetychnykh Navuk.; (1991).; (no.3) p. 26-32.;	Journal	The radionuclide in the area migration Chernobyl NPP at the 12 points of three landscape-geochemical proving grounds in Mogilev and Gomel Regions is studied The main characteristics of contamination, the vertical migration in a soil profile, the degree of radionuclide builup by plants and the intensity of the accumulated isotope release from domestic animal bodies are investigated The data presented could be applied for solving radioecological problems, forecasting radiation situations and developing practical recommendations	Russian	Belarus	23047942
Biological effect of ferrocyanides and their adsorbability in laboratory and industrial tests	Mayakov, EN; Budarkov, VA; Torubarova, AA; Volosevich, LA; Mishin, AM; Yastrebkov, YuA	1994	RAN, Moscow (Russian Federation). Nauchnyj Sovet po Problemam Radiobiologii.; All-Russian conference on applied aspects of radiobiology. Exhibition Radiobiology for practice; 87 p.; 1994.; p. 65-66.; All-Russian conference on applied aspects of radiobiology.; Moscow (Russian Federation).; 19-20 Apr 1994.; INIS-RU--406.;	Miscellaneous	Short communication	Russian	Russian Federation	26054564
Comparison of the measured specific activities in milk and beef in Aachen after 1986 with calculations using a single- and multicompartment model	Bonka, H; Schmelz, G; Technische Hochschule Aachen (Germany) Lehrgebiet Strahlenschutz in der Kerntechnik	1998	Radioactivity in man and environment. Pt. 2; 1998; p. 772-777; 30. annual meeting of Fachverband fuer Strahlenschutz e.V.: Radioactivity in man and environment and industrial exhibition; Lindau (Germany); 28 Sep - 2 Oct 1998; ISSN 1013-4506;	Book	After the nuclear reactor accident at Chernobyl until the end of 1990 the specific activity in milk from five farms and in beef from the slaughterhouse Aachen was measured At the same time the specific activity in grass and other feed was determined at the farms Transfer factors for feed-milk and feed-beef were derived from the data The development of the measured specific activities can be approximated very well using single- or multi-compartment models (orig)	German	Germany	31033493
Transfer of Cs-137 from soil to plants and lamb meat in Iceland	Palsson, SE; Sigurgeirsson, MA; Gudnason, K; Icelandic Radiation protection Inst, Reykjavik (Iceland); Thorsson, J; Thorkelsson, E; Agricultural Research Inst, Reykjavik (Iceland)	2002	Summaries of studies carried out in the NKS/BOK-2 project. Technical report; Dec 2002; p. 45-51; NKS--35; Also available on http://www.risoe.dk/rispubl/nks/nks-35.pdf; http://www.nks.org; 7 ref.;	Report	Icelandic sheep graze mainly on uncultivated land with many plant species The availability of species is governed by various environmental factors, whether the area is dry or wet, soil types, average annual precipitation, height above sea level etc The lamb studies within the NKS projects (RAD-3, EKO-2, BOK-2) have shown that fallout Cs-137 still remains readily available to plants, with little signs of reduction during the past decade The special properties of the young volcanic soils of Iceland can explain this Further studies of their properties are recommended in order to gain better understanding of the processes involved The root of the observed variability in Cs-137 concentration seems simply to be the ecological diversity of the uncultivated semi-natural ecosystem where the sheep are grazing Since the concentration of Cs-137 varies greatly between different plant species, difference in their relative abundance can cause considerable differences in agricultural products as have been observed here Much remains still to be done to understand better the behaviour of caesium in the Icelandic terrestrial ecosystem The lamb study has been an important step in understanding roots of variability in this sub-arctic environment and it serves as a	English	Denmark	34052024

"1"3"7Cs in the food-chain of lamb in the Faroe Islands Measurements in the period 1990-2000	Joensen, HP; Univ of the Faroe Island, Thorshavn (Denmark)	2002	Summaries of studies carried out in the NKS/BOK-2 project. Technical report; Dec 2002; p. 55-60; NKS--35; Also available on http://www.risoe.dk/rispubl/nks/nks-35.pdf; http://www.nks.org; 5 refs.;	Report	Large temporal and spatial variations are found for the measured "1"3"7 Cs activities and the calculated transfer factors, both within and across pastures The effective ecological half-life, T_1_/_2, could not be estimated for all the sample types in every pasture T_1_/_2 for "1"3"7 Cs activity in grass and lamb meat could be estimated to 31-53 years and 51-80, respectively Deposition of "1"3"7 Cs has not decreased significantly over the study period, except for two pastures with estimated effective ecological half-lives of 99 years and 116 years These are all rough estimates, as large variability is associated with the measurements Soil characteristics are, as expected, important for the transfer of radiocaesium in the food chain of lamb Among the tree predictors potassium, pH and loss on ignition, loss on ignition is found to be most significant for transfer (au)	English	Denmark	34052025
Factors contributing to radiocaesium variability in upland sheep flocks in west Cumbria (United Kingdom)	Beresford, NA; nab@cehacuk; Centre for Ecology and Hydrology, CEH-Lancaster, Lancaster Environment Centre, Library Avenue, Bailrigg, Lancaster LAI 4AP (United Kingdom); Barnett, CL; Wright, SM; Howard, BJ; Centre for Ecology and Hydrology, CEH-Lancaster, Lancaster Environment Centre, Library Avenue, Bailrigg, Lancaster LAI 4AP (United Kingdom); Crout, NMJ; University of Nottingham, School of Biosciences, Biology Building, University Park, Nottingham NG7 2RD (United Kingdom)	2007	Journal of Environmental Radioactivity; Nov 2007; p. 50-68; v. 98(1-2); 10.1016/j.jenvrad.2007.05.009; S0265-931X(07)00170-1; Available from http://dx.doi.org/10.1016/j.jenvrad.2007.05.009; Copyright (c) 2007 Elsevier Science B.V., Amsterdam, The Netherlands, All rights reserved.;	Journal	Following the Chernobyl accident in 1986, restrictions were placed on the movement and slaughter of sheep within upland areas of the UK because radiocaesium activity concentrations in their meat exceeded 1000 Bq kg"-"1 fresh weight Some farms remain under restriction in 2007 From 1991 to 1993 detailed studies were conducted on three sheep farms within the restricted area of west Cumbria to systematically assess the various parameters which may contribute to the observed variability in radiocaesium activity concentrations within sheep flocks This paper reports the spatial variation in soil and vegetation activity concentrations across the grazed areas at these farms and determines the influence of grazing behaviour on variability in "1"3"7Cs activity concentrations between individual sheep within the flocks Together with previously reported results, these new data are used to draw conclusions on the factors determining variability within the three flocks However, the factors are too site specific to be able to generalise the findings to other farms within the restricted areas of the UK	English	United Kingdom	39054905

ARRRG/FOOD, Doses from Radioactive Release to Food Chain	Napier, BA; Roswell, RL; Kennedy, WE Jr; Strenge, DL; Pacific Northwest Laboratories, Battelle, PO Box 999, Richland, Washington 99352 (United States); Organisation for Economic Co-Operation and Development, Nuclear Energy Agency - OECD/NEA, Le Seine Saint-Germain, 12 boulevard des Iles, F-92130 Issy-les-Moulineaux (France)	1984	26 Mar 1984; [html]; Available on-line: http://www.nea.fr/abs/html/nesc0925.html; Country of input: International Atomic Energy Agency (IAEA); 3 refs.;	Miscellaneous	1 - Description of problem or function: ARRRG calculates radiation doses to humans for radionuclides released to bodies of water from which people might obtain fish, other aquatic foods, or drinking water, and in which they might fish, swim, or boat FOOD calculates radiation doses to humans from deposition on farm or garden soil and crops during either an atmospheric or water release of radionuclides Deposition may be either directly from the air or from irrigation water With both programs, doses may be calculated for either a maximum- exposed individual or for a population group Doses calculated are a one-year dose and a committed dose from one year of exposure The exposure is usually considered as chronic however, equations are included to calculate dose and dose commitment from acute, one-time, exposure 2 - Method of solution: The radiation doses from external exposure to contaminated farm fields or shorelines are calculated assuming an 'infinite' flat plane source of radionuclides A factor of two is included for surface roughness, and a modifying factor is used to compensate for finite extent in the shoreline calculations The radionuclide concentrations in aquatic and irrigated food products are based on the radionuclide concentration in the contaminated water, which is based on the release rate of radioactive contamination and the characteristics of the receiving water body Concentration of radionuclides in plants depends on the concentrations in the soil, air, and water Concentration of radionuclides in farm animal products, such as milk, meat, or eggs, depends on the animal's consumption of feed, forage, and water containing radionuclides For persons swimming in contaminated water, the dose is calculated assuming that the body of water is an infinite medium relative to the range of emitted radiations Persons boating on the water are assumed to be exposed to a dose rate half that of swimmers Internal doses are calculated as a function of radionuclide concentration in food products, ingestion rates, and a radionuclide-specific factor The equations for calculating internal dose and dose commitment are derived from those given by the International Commission on Radiological Protection (ICRP) for body burden and maximum	English	Nuclear Energy Agency of the OECD (NEA)	41076005
Verification of radionuclide transfer factors to domestic-animal food products, using indigenous elements and with emphasis on iodine	Sheppard, SC; sheppards@ecomatterscom; ECOMatters Inc, WB Lewis Business Centre, 24 Aberdeen Avenue, Pinawa, Manitoba, R0E 1L0 (Canada); Long, JM; Sanipelli, B; ECOMatters Inc, WB Lewis Business Centre, 24 Aberdeen Avenue, Pinawa, Manitoba, R0E 1L0 (Canada)	2010	Journal of Environmental Radioactivity; Nov 2010; p. 895-901; v. 101(11); 10.1016/j.jenvrad.2010.06.002; S0265-931X(10)00134-7; Available from http://dx.doi.org/10.1016/j.jenvrad.2010.06.002; Copyright (c) 2010 Elsevier Science B.V., Amsterdam, The Netherlands, All rights reserved.;	Journal	Recent reviews have established benchmark values for transfer factors that describe radionuclide transfer from plants to animal food product such as milk, eggs and meat They also illustrate the paucity of data for some elements and some food products The present study quantified transfer data using indigenous elements measured in dairy, poultry and other livestock farms in Canada Up to 62 elements are reported, with particular emphasis on iodine (I) because of the need to accurately assess the behaviour of "1"2"9I from disposal of nuclear fuel waste There was remarkable agreement with the literature values, and for many elements the present study involved many more observations than were previously available Perhaps the most important observation was that product/substrate concentration ratios (CR) were quite consistent across species, whereas the traditional fractional transfer factors (TF, units of d kg"-"1 or d L"-"1) necessarily vary with body mass (feed intake) This suggests that for long-term assessments, it may be advisable to change the models to use CR rather than TF	English	United Kingdom	42044688
Hygienic problems of Sr"9"0 and Cs"1"3"7 migration along the soil-plants-milk-beef chain	Dauskurdis, SI; Novikov, YuV	1973	(Apr 1973).; (no.4) p. 91-94.; For English translation see the journal Hyg. Sanit.;	Journal		Russian	USSR	4088680
Grazing studies on selected plutonium-contaminated areas in Nevada	Smith, DD; National Environmental Research Center, Las Vegas, NV	1974	Dynamics of plutonium in desert environments. Nevada Applied Ecology Group progress report as of January 1974; Jul 1974.; NVO-AEIC--74-1.;	Report			United States	6165934

Estimated dose to man from uranium milling via the terrestrial food-chain pathway	Rayno, DR; Argonne National Lab, IL (USA)	1982	Jan 1982.; 33 p.; ANL/ES--125.; Available from NTIS., PC A03/MF A01 as DE82008718.;	Report	One of the major pathways of radiological exposure to man from uranium milling operations is through the terrestrial food chain Studies by various investigators have shown the extent of uptake and distribution of U-238, U-234, Th-230, Ra-226, Pb-210, and Po-210 in plants and animals These long-lived natural radioisotopes, all nuclides of the uranium decay series, are found in concentrated amounts in uranium mill tailings Data from these investigations are used to estimate the dose to man from consumption of beef and milk contaminated by the tailings This dose estimate from this technologically enhanced source is compared with that from average normal dietary intake of these radionuclides from natural sources		United States	13699260
Transfer data for radio-cesium in the food chain feed/meat	Fliegl, E; Bundesforschungsanstalt fuer Ernaehrung, Karlsruhe (Germany, FR) Zentrallaboratorium fuer Isotopentechnik	1981	Fortbildungszentrum Gesundheits- und Umweltschutz Berlin e.V. (Germany, F.R.).; Radioecology and radiation protection; 208 p.; 1981.; p. 1-12.; 48. FGU-seminar on radioecology and radiation protection.; Berlin, Germany, F.R.; 20 - 22 May 1981.; Available from Fortbildungszentrum Gesundheits- und Umweltschutz Berlin e.V., Germany, F.R.;	Miscellaneous	It is necessary to have some knowledge of the behaviour of radioactive material in the food chain to be able to assess the radiation exposure of humans via the ingestion path way The transfer factor has to be defined precisely because there is a linear dependence of the radiation dose on the transfer factor in the mathematical models for calculating the annual radiation doses Knowledge of the animal-specific cesium retention, of the biological half-life as well as of the distribution system is required for an accurate calculation of the transfer-data of the particularly important radionuclide cesium 137 After having studied the original literature thoroughly the following transfer factors have been found as an average: cattle 003 +- 002, calf 043 +- 006, goat 020, sheep 011 +- 002, swine 026 +- 001, chicken 323 +- 141, reindeer 031 +- 007 (MG)	German	Germany	13710821
RAGBEEF: a FORTRAN IV implementation of a time-dependent model for radionuclide contamination of beef	Pleasant, JC; McDowell-Boyer, LM; Killough, GG; Oak Ridge National Lab, TN (USA)	1982	Jun 1982.; 138 p.; NUREG/CR--2610.; ORNL/TM--8011.; Available from NTIS., PC A07/MF A01 as DE82015708.;	Report	RAGBEEF is a FORTRAN IV program that calculates radionuclide concentrations in beef as a result of ingestion of contaminated feeds, pasture, and pasture soil by beef cattle The model implemented by RAGBEEF is dynamic in nature, allowing the user to consider age- and season-dependent aspects of beef cattle management in estimating concentrations in beef It serves as an auxiliary code to RAGTIME, previously documented by the authors, which calculates radionuclide concentrations in agricultural crops in a dynamic manner, but evaluates concentrations in beef for steady-state conditions only The time-dependent concentrations in feeds, pasture, and pasture soil generated by RAGTIME are used as input to the RAGBEEF code RAGBEEF, as presently implemented, calculates radionuclide concentrations in the muscle of age-based cohorts in a beef cattle herd Concentrations in the milk of lactating cows are also calculated, but are assumed age-dependent as in RAGTIME Radionuclide concentrations in beef and milk are described in RAGBEEF by a system of ordinary linear differential equations in which the transfer rate of radioactivity between compartments is proportional to the inventory of radioactivity in the source compartment This system is solved by use of the GEAR package for solution of systems of ordinary differential equations The accuracy of this solution is monitored at various check points by comparison with explicit solutions of Bateman-type equations This report describes the age- and season-dependent considerations making up the RAGBEEF model, as well as presenting the equations which describe the model and a documentation of the associated computer code Listings of the RAGBEEF and updated RAGTIME codes are provided in appendices, as are the results of a sample run of RAGBEEF and a description of recent modifications to RAGTIME		United States	14719411

Migration of selected radionuclides in the food chain II	Hanusik, V; Smajda, B; Musatovova, O; Szabova, T; Ustav Radioekologie a Vyuzitia Jadrovej Techniky, Kosice (Czechoslovakia)	1983	(1983).; v. 6(3) p. 173-190.; For Part I see Radioaktiv. Zivotn. Prostr. (1983) v. 6(1) p. 49-64.;	Journal	The migration is described of radiostrontium, radiocesium and radioiodine in the system plant-animal-man, and the impact is monitored of the individual factors on the accumulation of these radionuclides in the organisms of animals and humans On the basis of data published (NRC Regulatory Guide 1109) relating to the variability of the parameters of the model, the range is estimated of variations of radiostrontium and radiocesium concentrations in meat and in milk as is the range of variations of the whole-body dose equivalent (author)	Slovak	Czechoslovakia	15067345
Human food chain contamination The case of meat in the EEC in 1977	Stemmelen, E; CEA Centre d'Etudes Nucleaires de Fontenay-aux-Roses, 92 (France)	1984	Apr 1984.; 168 p.; CEA-R--5262.;	Report	Cesium 137 levels in meat distributed for human consumption have been determined as a function of the contamination levels at production The model considers product transformations and exchanges between EEC countries or areas On the basis of the statistics available and with a number of economic assumptions the flows are estimated, thus allowing to calculate contamination transfers Cattle, pork, fowl have been considered especially, the other meat more briefly The initial levels are exogenous variates various assumptions can thus be tested: real measures or arbitrary values The model confirms that the final values for the ingested activities are low, but the difference between the levels before and after exchanges may be very large Transfers occur usually within a country from rural to urban areas and sometimes from one country to another In some little productive areas, the situation depends mostly on contaminations from external and even remote origin	French	France	16002049
Consequences of the Chernobyl accident	Royal Coll of Radiologists, London (UK)	1988	On the state of the public health; 1988.; p. 93-94.; H. M. Stationery Office.; London (UK).; Price Pound 11.25.;	Book	This annual report includes a summary of the consequences of the nuclear accident at Chernobyl Topics listed include the monitoring and control of radionuclide levels in food, control of the movement and slaughter of sheep, the monitoring of human exposures, the review of accident plans, international cooperation, and the use of stable iodine (UK)		United Kingdom	20008232
Transfer of some Chernobyl fallout nuclides in the animal-product food chain	Handl, J; Niedersaechisches Inst fuer Radiooekologie, Hannover (Germany, FR); Pfau, A; Forschungsanstalt fuer Landwirtschaft Neustadt am Ruebenberge (Germany, FR) Inst fuer Tierzucht und Tierverhalten	1988	Environmental impact of nuclear accidents; Sep 1988.; p. E92-E97.; 4. Cadarache International Symposium on Radioecology.; Cadarache (France).; 14-18 Mar 1988.; Section Documentation - CEN/Cadarache.; Cadarache (France).;	Book	One of the most important tasks after the Chernobyl accident was the tracing of radionuclides into the food chain because of the acute interest in view of radiation protection considerations and of the fundamental significance to extend the knowledge on consequences of an accidental release In this context five experiments have been performed during the last two years to investigate the transfer of radiocesium from grass into milk and meat of dairy cows The first experiment, which was started immediately after the accident, involved 10 stable-kept cows fed with the freshly contaminated grass Cs-transfer from grass into milk was found to be considerably lower than expected After the starting phase of one week the mean transfer factor milk/grass for Cs-134 and Cs-137 leveled at 3210"-"3 d/kg during the second week This interesting result gave rise to four additional experiments, to study the Cs-transfer during the following feeding periods applying grass of fallout and root-uptake contamination		France	20022412
Combating radiocesium contamination in farm animals	Hove, K; Ekern, A; Norges Landbrukshoegskole, Vollebekk (Norway)	1988	Health problems in connection with radiation from radioactive matter in fertilizers, soils and rocks; 1988.; p. 140-153.; International symposium on health problems in connection with radiation from radioactive matter in fertilizers, soils and rocks.; Oslo (Norway).; 26-27 May 1988.; Universitetsforlaget.; Oslo (Norway).; 27 refs.;	Book	Considerable amounts of radioactive fallout from the Chernobyl accident swept central parts of Norway, where especially native mountain areas but also some agricultural land were heavily contaminated Parts of the heavily polluted areas are important in Norwegian animal production, being grazed by reindeer all year, and by sheep, goats and cattle in the summer Cs-137 and Cs-134 appeared in feeds shortly after the accident and the levels increased throughout the summer In this paper some of the results obtained in experiments with contaminated animals in Norway are reviewed Experiments in connection with the use of uncontaminated feeds for decontamination of farm animals, the transfer of radioactivity to milk, and the use of cesiumbinders to reduce cesium contamination are described		Norway	21006045

Transfer of radiocaesium present in hay contaminated by Chernobyl fallout to pregnant ewes and their lambs at different ages	Daburon, F; Fayart, G; Baradat, M; Libotte, S; CEA Centre d'Etudes de Fontenay-aux-Roses, 92 (France) Dept de Pathologie et de Toxicologie Experimentales	1992	Radioprotection.; (Oct-Dec 1992).; p. 423-435.; v. 27(4).;	Journal	Contaminated hay harvested in the south-east of France in june 1986 was fed to 4 pregnant ewes from about 1 month before to 1 month after lambing The caesium body burdens ("1"3"7 Cs and "1"3"4 Cs) of ewes and lambs (n = 6) were assessed by whole-body counting the milk intake of the lambs was estimated as a function of their daily weight increase The mean milk and meat transfers in ewes, between D10 and D30 after lambing were respectively 47#+-#14% and 79#+-#17% At birth the mean caesium body burden of the lambs was 32#+-#8% of the dam body burden at weaning (D30) the mean retention of the ingested radiocaesium was 39#+-#6% vs 273#+-#32% for the dams The spontaneous decorporation half-time of caesium in lambs at weaning was about 145 days (mono-exponential curve) vs about 26 days for the dams (long component of bi-exponential curve) Meat transfers, uptake and spontaneous decorporation parameters were also studied: (1) in 4 lambs from 1 to 3 months after weaning and (2) in 3 young animals between 9 and 10 months after birth The values of the different parameters of caesium transit in neonates and lambs are discussed with regard to contamination accident management	French	France	24041704
Agriculture, environment and nuclear energy: how react in front of accident	CEA Centre d'Etudes de Fontenay-aux-Roses, 92 (France) Inst de Protection et de Surete Nucleaire	1994	1994.; 105 p.; Institut de Protection et de Surete Nucleaire.; Fontenay-aux-Roses (France).; ISBN 2-950-8497-09.;	Book	This book has the objective to inform population and specially agricultural population The different chapters are presented as followed: how the different media are contaminated (air, soils, water) and the different productions (milk, cereals, vegetables, meat) the risks which could come from this contamination and the possibilities of protection against it	French	France	26008141
A software for a quick assessment of the consequences of a radioactive fallout on the food chain: application to a tropical environment	Laylavoix, F; CEA Centre d'Etudes de Fontenay-aux-Roses, 92 (France) Dept de Protection de la Sante de l'Homme et de Dosimetrie; Ducousso, R; Centre de Recherches du Service de Sante des Armees, 92 - Clamart (France); Grouzelle, C; Baudot, MF; Direction des Centre d'Experimentations Nucleaires, 91 -Montlhery (France)	1995	Radioprotection.; (Jan-Mar 1995).; p. 79-88.; v. 30(1).;	Journal	A software has been developed for a fast assessment of the consequences of a radioactive fallout on the food chain From the surface activity measured 24 h after deposition, it computes the dose ingested by the population on the 60th day of exposure this duration corresponds to 2 or 4 mechanical clearance half-lives of the radionuclides at the vegetal surface Particular attention was paid to easy access to specific local parameters, conviviality and possibility to be used on any MSDOS operated PC (authors) 17 refs, 1 fig	French	France	26052598
Recent advances in terrestrial radioecology	Steinnes, E; Trondheim Univ (Norway)	1995	Joint Inst. for Nuclear Research, Dubna (Russian Federation). Lab. of Neutron Physics.; Nuclear physics for protection of the environment. NPPE-95. Abstracts; 164 p.; 1995.; p. 76.; 3. International Meeting. Nuclear physics for protection of the environment.; Dubna (Russian Federation).; 23-28 May 1995.; JINR.; JINR-E--14-95-206.;	Miscellaneous	Short communication	English	Russian Federation	27013713

Agricultural industrial production under the conditions of radioactive contamination Chapter 4	Bogdevich, IM; Akadehmiya Agrarnykh Navuk Belarusi, Minsk (Belarus) Belaruski Navukova-Dasledchy Inst Glebaznawstva i Agrakhimii; Ageets, VYu; Akadehmiya Agrarnykh Navuk Belarusi, Minsk (Belarus) Belaruski Navukova-Dasledchy Inst Glebaznawstva i Agrakhimii; Antsypov, GV; Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus)	1996	Konoplya, E.F.; Akadehmiya Navuk Belarusi, Minsk (Belarus). Inst. Radyyabiyalogii; Rolevich, I.V.; Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus); Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus); Akadehmiya Navuk Belarusi, Minsk (Belarus).; The Chernobyl catastrophe consequences in the Republic of Belarus. National report; 96 p.; Mar 1996.; p. 59-75.; INIS-mf--14750.;	Miscellaneous	More than 18 million hectares of agricultural fields that makes up 208% of the available area was exposed to radioactive contamination with Cs-137 density over 37 kBq/sqm, including 265 thousand sq km with Cs-137 contamination density over 1480 kBq/sqm, Sr-90 - more than 111 kBq/sqm and Pu - over 37 kBq/sqm which were excluded from economic turn-over The behaviour of radionuclides in soil and their transfer to the plant-growing products are described Methods restricting the radionuclides intake into plants such as selection of cultures, soil cultivation, liming of acid soils, fertilizers, protection of plants, water regime regulation and other are given The problems of animal breeding are described For alleviation of the practical use of recommendations there have been calculated the norms of radionuclides permissible content in concrete forage for cattle on the basis of typical rations and the certain scheme of young stock breeding and cattle fattening has been proposed Forecasting of agricultural products contamination and the efficiency of protective measures are given 5 tabs, 12 figs	Russian	Belarus	27040880
Agricultural industrial production under the conditions of radioactive contamination Chapter 4	Bogdevich, IM; Akadehmiya Agrarnykh Navuk Belarusi, Minsk (Belarus) Belaruski Navukova-Dasledchy Inst Glebaznawstva i Agrakhimii; Ageets, VYu; Akadehmiya Agrarnykh Navuk Belarusi, Minsk (Belarus) Belaruski Navukova-Dasledchy Inst Glebaznawstva i Agrakhimii; Antsypov, GV; Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus)	1996	Konoplya, E.F.; Akadehmiya Navuk Belarusi, Minsk (Belarus). Inst. Radyyabiyalogii; Rolevich, I.V.; Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus); Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus); Akadehmiya Navuk Belarusi, Minsk (Belarus).; The Chernobyl catastrophe consequences in the Republic of Belarus. National report; 88 p.; Mar 1996.; p. 54-69.; INIS-mf--14751.;	Miscellaneous	More than 18 million hectares of agricultural fields that makes up 208% of the available area was exposed to radioactive contamination with Cs-137 density over 37 kBq/sqm, including 265 thousand sq km with Cs-137 contamination density over 1480 kBq/sqm, Sr-90 - more than 111 kBq/sqm and Pu - over 37 kBq/sqm which were excluded from economic turn-over The behaviour of radionuclides in soil and their transfer to the plant-growing products are described Methods restricting the radionuclides intake into plants such as selection of cultures, soil cultivation, liming of acid soils, fertilizers, protection of plants, water regime regulation and other are given The problems of animal breeding are described For alleviation of the practical use of recommendations there have been calculated the norms of radionuclides permissible content in concrete forage for cattle on the basis of typical rations and the certain scheme of young stock breeding and cattle fattening has been proposed Forecasting of agricultural products contamination and the efficiency of protective measures are given 5 tabs, 12 figs	English	Belarus	27040881

Transfer coefficients of radionuclides from feed to livestock products	Radioactive Waste Management Center, Tokyo (Japan)	1995	Mar 1995.; 155 p.; RWMC--95-P-17.;	Report	The accumulation of data on radionuclide transfer are poor in Japan and those are limited to "9"0Sr, "1"3"7Cs and "1"3"1I released from the previous atomic bomb experiments However, in Europe, intensive studies on environment RI level which affects the restriction of the intake for meats and milk products have been made as the measures against the environment radioactivity due to Chernobyl accident The transfer coefficients of radionuclides to meats and milk products were estimated on a basis of the data published in the Science of the Total Environment vol85(1989), Oxford University and CEC Radiation Protection, EUR 12608 EN, Luxembourg, 1990 in addition to the data on Exclusion of Radioactivity from foods, Environment Parameter, series No 4 On the other hand, the transfer coefficients for Japanese were estimated using the concerned data from published reports and the environment radioactivity data reported by national and local government bodies In this book, many new data of transfer coefficient are presented in tables along with the previous data collected by international nuclear energy agencies and respective national facilities concerned (MN)	Japanese	Japan	28012585
Agriculture, environment and nuclear facilities: how to react in the case of an accident	Ponchet, M; Metivier, H; CEA Centre d'Etudes de Fontenay-aux-Roses, 92 (France) Inst de Protection et de Surete Nucleaire	1996	1996.; 105 p.; Institut de Protection et de Surete Nucleaire.; Paris (France).; ISBN 2-950-84970-9.;	Book	This work is a contribution to the estimates of accidental contamination consequences This estimates will provide a way to intervene as quickly as possible and with measures adapted to the situation The different chapters present a knowledge assessment on 1)the way the contamination of the different media (air, water, soils, cattle, plants, non cultivated natural medium, buildings, equipment) and the different productions (milk, cereals, meat, vegetables, forage, fruits, vine, fish breeding) take place 2)the hazards which can result of the contamination and 3)the prevention means They are preceded by a short description of what is a nuclear accident, its seriousness and the probability it happens as well as the characteristics of the main radioisotopes which would be issued (OM)	French	France	28027899
Behavior of "1"3"7Cs in Nothern Greece one Decade after Chernobyl	Papastefanou, C; Manolopoulou, M; Stoulos, S; Ioannidou, A; Thessaloniki Univ (Greece) Dept of Nuclear Physics	1996	Journal of Radioecology.; (1996).; p. 9-14.; v. 4(1).;	Journal	The levels of Chernobyl-derived "1"3"7Cs were measured at Thessaloniki, Greece in air, precipitation, soil, grass and milk as well as in various items of food products 10 years after the accident The data show significant variations particularly in the spring and autumn measurements In interpreting these variations, injections into the atmosphere from the troposphere or possibility the stratosphere from the Chernobyl accident, nuclear weapons testing, and other releases from nuclear reactors operating world-wide have been taken into consideration Estimates of the removal half-time of "1"3"7Cs in air and grass resulted in 16 months (1 1/3 years) and 40 months (3 1/3 years), respectively, much shorter than its physical half-life 3014 years) (Author) 3 tabs, 4 figs, 7 refs	English	Slovakia	28067417

Radionuclide migration in the soil-feed-animals chain	Karpenko, AF; Gomel'ski Dzyarzhawny Univ, Gomel (Belarus)	1996	Konoplya, E.F.; Amvros'ev, A.P.; Bogdevich, I.M.; Bondar', Yu.I.; Karaseva, E.I.; Lobanok, L.M.; Matsko, V.P.; Pikulik, M.M.; Rolevich, I.V.; Stozharov, A.N.; Yakushev, B.I.; Ministehrstva pa Nadzvychajnykh Situatsyyakh i Abarone Nasel'nitstva ad Vynikaw Katastrofy na Charnobyl'skaj AEhS Rehspubliki Belarus', Minsk (Belarus); Akadehmiya Navuk Belarusi, Minsk (Belarus).; Abstracts of papers of international scientific conference 'Ten years after the Chernobyl catastrophe (scientific aspects of problem)'; 331 p.; Feb 1996.; p. 133.; International scientific conference 'Ten years after the Chernobyl catastrophe (scientific aspects of problem)'.; Minsk (Belarus).; 28-29 Feb 1996.; INIS-mf--14802.;	Miscellaneous	Short communication	Russian	Belarus	28067663
Radiation protection for human population	Kenigsberg, YaEh; Navukova-dasledchy inst radyyatsyjnaj medytsyny, Minsk (Belarus); Bogdevich, IM; Belaruski navukova-dasledchy inst pochvaznawstva i agrakhimii, Minsk (Belarus); Rolevich, IV; Sharovarov, GA; Skurat, VV; Inst radyyaehkalagichnykh prablem, Minsk (Belarus)	1997	Konoplya, E.F.; Natsyyanal'naya Akadehmiya Navuk Belarusi, Minsk (Belarus). Inst. Radyyabiyalogii; Rolevich, I.V.; Ministehrstva pa Nadzvychajnykh Situatsyyakh Rehspubliki Belarus', Minsk (Belarus); Ministehrstva pa Nadzvychajnykh Situatsyyakh Rehspubliki Belarus', Minsk (Belarus); Natsyyanal'naya Akadehmiya Navuk Belarusi, Minsk (Belarus). Inst. Radyyabiyalogii; The main results of fulfilment in 1996 of the scientific part of the State programme of the Republic of Belarus for minimization and overcoming of the Chernobyl NPP accident consequences (1996-2000); 202 p.; 1997; p. 10-54; INIS-BY--006;	Miscellaneous	Are given the results of researches carried out in Belarus in 1996 on the following directions: study of features of formation of the population irradiation doze definition of collective irradiation dozes of the population of Belarus for 10 years after the Chernobyl accident and forecast of risk of radiation induced diseases study of influence of the radioactive contamination on agricultural ecosystems development of technologies of manufacture on the contaminated soils of plant and cattle-breeding production and food products with the permissible contents of radionuclides in according to the requirements of radiation protection development and perfection of complex technologies, ways and means of decontamination, processing and burial of radioactive wastes development and substantiation of actions for increase of radiation security of the population of Belarus development of combined system of an estimation on problems of radiation protection of the population living on contaminated territories	Russian	Belarus	29049359

Radiocesium burden in wild boar: causes and trends until today	Pohlschmidt, J; Staatliches Veterinaeruntersuchungsamt, Hannover (Germany)	2000	StrahlenschutzPraxis (Koeln); 2000; p. 29-33; v. 6(3);	Journal	The examination of nearly 500 samples showed, that in certain circumstances the radiocesium contamination of wild boars is depending on the supply with seeds of oaks and beeches If this regionally very important nourishment is missing, the boars are forced to gain feed by rooting the upper soil-layers The radiocesium-contamination of soil in forests will decrease very slowly, because cesium remains nearly completely in the upper layers So diminution is given mainly by the half-life of "1"3"7Cs (30 years) In principle the result of this study is transferable to all (noxious) components which are existing in those soil-layers The dependance between acorn-mast and the contamination of wild boars requires appropriate care, especially if trend-studies are carried out (orig)	German	Germany	32034434
WAVFH delegates' reports: Australia	Scanlan, WA	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [4 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069;	Report	Radiation measuring and control before Chernobyl: Continuous measurements of fallout in different parts of Australia, including the food producing areas, have been made since the mid 1950s Levels have decreased rapidly since the cessation of atmospheric nuclear tests in the Southern Hemisphere in 1974 and in the Northern Hemisphere in 1980 Measurements of concentrations of radionuclides arising from fallout were made for the major groups of foods affected by the radioactive contaminants, starting in the 1950s and continuing until concentrations were so low that further effort in measurement was not warranted, ie, less than 01 Bq/kg or 01 Bq/l Changes in the concentrations of radionuclides in foods follow the same trends as the fallout levels Based on the low levels of fallout measured in Australia since the 1950s, and taking into account the extremely low levels during the past decade, the concentrations of radionuclides arising from fallout in foods grown and processed in Australia are extremely small Results from the fall-out from Chernobyl Since the Chernobyl accident, measurements of the concentrations of "1"3"7Cs in a variety of foodstuffs grown in Australia have been made, mainly for export purposes A summary of the results of these measurements is given in Table 111 of Attachment 2 No "1"3"4Cs has been detected, nor is it likely to be By taking into account these measurements, the earlier measurements of foodstuffs, predictive modelling values and the very low levels of fall-out in deposit and in air, it is concluded that the concentrations of "1"3"7Cs in all foodstuffs grown in Australia are extremely small Accordingly, their consumption would result in no significant risk to the health of a population With world atmospheric conditions being as they are, it will probably be 12 to 18 months before any fallout reaches Australia Even if some fall-out does occur, it will be minimal and should not significantly increase our very low natural levels Thus our exports of raw and processed foods are not and should not be affected Activities after Chernobyl The Australian Government has in place strict import controls on foods In the case of radioactivity contamination the Australian Customs Service has	English	International Atomic Energy Agency (IAEA)	36080751

Contamination levels observed on the Belgian territory subsequent to the Chernobyl accident	Hoof, J van; State University of Ghent, Faculty of Veterinary Medicine, Gent (Belgium); Maghuin-Rogister, G; Universite de Liege, Brussels (Belgium)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [21 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069; 2 refs, 15 figs, 5 tabs;	Report	Contaminated air masses reached the Belgian territory from the South during the night of the first to the second of May At this stage however the origin of this contamination was already identified through earlier observations over the Scandinavian area and the subsequent message about the reactor accident at the Chernobyl site Later on radioactive clouds were also detected over the central part of Europe, demonstrating the persistent nature of the emissions from the damaged reactor Consequently the influence on the Belgian territory was not unexpected The authorities called on the SCK/CEN at Mol, and the IRE at Fleurus to assist the IHE at Brussels in collecting the necessary data for judging the radiological situation in our country The KMI/IRM at Brussels was involved for the follow-up of meteorological conditions and analysis of the trajectories of contaminated air masses Early detection possibilities for the arrival of contaminated air were provided by the continuous environmental monitoring apparatus for ambient #gamma#-dose rate or for #BETA# activity of airborne dust, available at nuclear institutions and nuclear power plants On detection of enhanced air radioactivity, the sampling period of routine air dust samplers was significantly shortened to allow for the hour to hour renewal of data for gross #BETA# activity as a general indication of the evolution of the air contamination #gamma#-spectrometric analysis of those filters provided the necessary data for the estimation of the dose equivalent due to inhalation Ground deposition data at the location of the participating institutions were obtained by daily analysis of the radioactivity contents of a water container collecting both dust and rainwater Field gamma spectrometry was used later on at a number of other locations, to estimate the integrated ground deposition of radioactivity and its distribution over the country As the grazing season was just started or was about to be started in the following days for regions of higher altitude (Ardennes), the food chain grass-milk was intensively surveyed in first instance in respect of iodine-131 contamination Extensive grass sample measurements were carried out during the first week of May, until further significant deposition ceased Milk	English	International Atomic Energy Agency (IAEA)	36080752
WAVFH delegates' reports: China	Deng Mingyi; Hunan Import and Export Commodity Inspection, Bureau of the People's Republic of China, Chansha (China)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [4 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069;	Report	The work of radiation protection has been given great attention in China The Ministry of Health is the competent authority in charge of the work Before the accident at Chernobyl, the government had formulated and promulgated laws and regulations concerning the radiation protection, such as the Basic Standard for Radiation Protection, the Basic Standard for Radiation Protection of Nuclear Plants, the institutions and organizations for monitoring radioactive pollution at national level and provincial level had been set up After the accident at Chernobyl, each of the monitoring institutions and organizations took samples of air, subsided substances of atmosphere, rainwater, terrestrial surface water from various sources, vegetables, milk and thyroid glands of sheep and goats immediately, for the detection of radiation contamination As far as we know that the samples had small extent contamination, the extent of contamination of samples in the south of China is smaller than that of samples in the north of China, that the content of nuclides in various samples is lower than the limits of radioactive substances set in national standard, and that radiation dosage subjected by residents of China caused by the contamination is also lower than the set quota in the national standard The contamination did not interfere with the regular life of the residents	English	International Atomic Energy Agency (IAEA)	36080753

The monitoring of radioactive substances in biological food chains by the veterinary service in Czechoslovakia	Pawel, O; Central State Veterinary Institute, Prague, Czechoslovakia (Czech Republic)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [6 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069;	Report	Czechoslovakia has established an environmental monitoring system to protect the hygienic conditions of the environment from the radiation hazard The control authorities of the Ministry of Agriculture and Food take part in this system in order to collect information on the contamination with radioactive substances of soil, plants, game, food animals, foodstuffs and raw materials, ie information on all links of the food chain which extends from animals to man A radioactive substances detection programme has been launched by the appropriate authorities in agriculture, animal husbandry and veterinary service The programme includes a two-stage laboratory analysis of radioactive substances The majority of laboratories covering the programme are already in operation	English	International Atomic Energy Agency (IAEA)	36080754
The response of the radionuclide monitoring programme for agricultural products in Great Britain to the accident at Chernobyl	Morris, JA; Central Veterinary Laboratory, Weybridge, Surrey (United Kingdom)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [12 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069; 1 fig, 3 tabs;	Report	The overall objective of the radiation monitoring and control programme of the Ministry of Agriculture, Fisheries and Food in Great Britain is to ensure the safety of foodstuffs The particular responsibility of my department within the Ministry is the analysis of agricultural products for the presence of radionuclides entering the human food chain from atmospheric releases The Ministry also has a laboratory which monitors the marine environment This presentation describes the surveillance programme for agricultural foodstuffs and show how it was used to monitor the deposition from the Chernobyl accident, and shows some of the monitoring data obtained and indicate how the information was used in formulating protective measures It also mentions future plans	English	International Atomic Energy Agency (IAEA)	36080757
Radiation levels in milk and meat in Ireland after Chernobyl	Dodd, Kevin; Hannan, John; Department of Farm Animal Clinical Studies, Faculty of Veterinary Medicine, University College Dublin, Dublin (Ireland)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [4 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069; 4 figs;	Report	The island of Ireland has no nuclear energy industry and national power requirements are met by a combination of peat, gas and imported oil We are acutely conscious of the proximity of nuclear installations on the West Coast of Britain and much effort is expended on monitoring the marine environment, particularly seaweed, fish and sediment The Nuclear Energy Board is a government appointed body charged with the responsibility of regulating the use of radioactive materials in Irish hospitals laboratories and industry and with monitoring the radioactivity of food and in the air It is very well recognised in Ireland that our reputation for clean food is crucial for our economic development and recent events have ensured increased emphasis on food monitoring for levels of radioactivity Since the Chernobyl accident and with increased awareness of the vulnerability of our agriculture industry to airborne contamination, the resources of the Nuclear Energy Board has been stretched to the limit and there is an increased level of co-operative work with the physics department of the universities University College Dublin Physics Department have monitored the milk used in the greater Dublin area since Chernobyl and it's in this area I wish to report The sampling techniques were based on a random sampling of milk over a wide area and a detailed sampling on a daily basis of milk from the University Farm which is situated about 12 kilometers from Dublin, and have continued to date Results: In the random milk supply the level of I131 and Cs137 rose from a background level of approx 2-3bq/litre to approx 300 bq/litre shortly after the plume reached Ireland on May 2nd 1986 One sample with 400 bq/litre I131 was observed These levels fell rapidly over the next 2 weeks and settled down to levels of about 10-20 bq/litre On the University Farm there was a difference between the levels in the morning and evening milk production as illustrated, probably due to the time intervals between milking There was a steady drop in the levels of I131 and Cs134, 137 over the following months, and then a slight rise in the levels in December 1986, which coincided with the feeding of silage cut in May The background K40 is a natural nuclide which has nothing to do with Chernobyl and is a	English	International Atomic Energy Agency (IAEA)	36080758

Radioactive contamination of food in Slovenia after Chernobyl incident	Milohnoja, M; Veterinary College, Ljubljana (Yugoslavia)	1986	Report on international round table conference 'Accidental radiation contamination of food of animal origin'. Vol.II (Working papers); 1986; [4 p.]; International round table conference 'Accidental radiation contamination of food of animal origin; Stockholm (Sweden); 26-29 Jan 1987; INIS-XA-C--069; 6 tabs;	Report	This review of the situation and of measures on veterinary inspection is confined to Slovenia (the most northern republic of SFR Yugoslavia) First analysis of grass and rain-water made on 30 April 1986 showed that Slovenian agricultural superficies are contaminated with J-131 and Cs-137 A program of monitoring grass, rain-water, milk, meat of slaughter animals and game, fish, eggs and other food (vegetables) was made The degree of contamination of milk with J-131 was very high in the first 10 days of month May, then rapidly lowered All dairy cattle kept indoors, fed with old feeding stuff and watered with drinking water had milk with less than 60 Bq/l J-131 After 10 May the degree of contamination of milk with Cs-137 and Cs-134 began slowly to increase, but in June to decrease, so that most of the examined samples had less than 100 Bq/l Cs-137 and Cs-134 All milk (from the areas) with more than 200 Bq/l J-131 was sent to milk powder factory or to cheese-dairies Analyses (made in July and August) of this milk powder showed that J-131 has almost 'disappeared', the content of Cs-137 and Cs-134 varied from 504 to 1150 Bq/l (ie 63 to 144 Bq/l in reconstituted milk) in cheese the content of Cs-137 and Cs-134 was lower than 100 Bq/kg	English	International Atomic Energy Agency (IAEA)	36080763
Transfer of radiocaesium and radiostrontium to horse and sheep milk and meat	Semioshkina, N; Voigt, G; Savinkov, A; Mukusheva, M; GSF-Institute of Radiation Protection, Neuherberg, (Germany)	2004	Institut de Radioprotection et de Surete Nucleaire, IRSN, 92 - Fontenay-aux-Roses (France); Conference ECORAD 2004 - the scientific basis for environment protection against radioactivity. Abstracts; 294 p.; 2004; p. 162; Conference ECORAD 2004 - the scientific basis for environment protection against radioactivity; Aix-en-Provence (France); 6-10 Sep 2004; INIS-FR--3981;	Miscellaneous	Over a period of 40 years the Semipalatinsk nuclear test site (STS) located in the Republic of Kazakhstan was the most important site for testing atomic bombs and other civil and military nuclear devices of the former Soviet Union resulting in a total of 456 nuclear tests Until 1989 access to the STS was restricted and the area was not used for agriculture, but since closure of the test site agricultural activities have restarted Herds of sheep and horses belonging to collective farms around the STS are grazing without any restriction including the areas of Ground Zero, Lake Balapan and the Degelen mountains identified as potential high contaminated sites In the literature there is no information available on the transfer of radionuclides from vegetation to meat and milk of horses, representing a major component of the diet of the local population of the STS As a consequence, the transfer of radiocaesium and radiostrontium to horse meat and milk has been studied in the laboratory and under field conditions representative for the Semipalatinsk test site in Kazakhstan by us to be included in site specific dose calculation models for dose estimates The transfer of radiocaesium and radiostrontium to sheep has been well investigated and quantified in the consequence of the Chernobyl accident and many laboratory studies mainly in the EC However, few information on the behaviour on these radionuclides in non-European environments is available In order to better and more reliable predict doses received by the local population of the STS experimental transfer studies in the field and in laboratory have been conducted In this contribution the results of experiments on site-specific transfer behaviour of two important radionuclides to major diet components (sheep and horse milk and meat) to the local population in Kazakhstan is presented It has been realized in this work for the first time under field and laboratory conditions (author)	English	France	37012812

Reduction of activity concentration of radiocesium in meat by preparation of heat-pressure bowling	Dvorak, P; Ustav biochemie, chemie a biofyziky, Fakulta veterinarni hygieny a ekologie, Veterinarni a farmaceuticka univerzita, 61242 Brno (Czech Republic); Kunova, V; Statni zemedelska a potravinarska inspekce, Ustredni inspektorat, 60300 Brno (Czech Republic)	2006	Toropila, M.; Benova, K.; Hromada, R.; Falis, M.; Danova, D.; Novakova, J.; Ustav radiobiologie, Katedra zivotneho prostredia, Univerzita veterinarneho lekarstva, 04181 Kosice (Slovakia); Dvorak, P.; Ustav biochemie, chemie a biofyziky, Fakulta veterinarni hygieny a ekologie, Veterinarni a farmaceuticka univerzita, 61242 Brno (Czech Republic); Ustav radiobiologie, Katedra zivotneho prostredia, Univerzita veterinarneho lekarstva, 04181 Kosice (Slovakia); University of Veterinary Medicine; Kosice (Slovakia); Proceedings of the 6"r"d Radiobiological conference with international participation dedicated to 20"t"h anniversary of nuclear accident in Chernobyl, 2006; 386 p.; May 2006; p. 141-145; 3. Radiobiological conference 2006; Kosice (Slovakia); 25 May 2006; INIS-SK--2006-018A; Project	Miscellaneous	The meat (Sus stroma) was salted (5 g NaCl to 100 g meat) before preparation by heat pressure bowling - 15 minutes There was reached drop of activity concentration of radiocesium about 50 % (from 427 % to 583 %) The meat had activity concentration of radiocesium 106 Bq #centre dot# kg"-"1 The activity concentration of radiocesium was reduced on average to 53 Bq #centre dot# kg"-"1 The activity concentration of "1"3"7Cs was measured by gamma-spectrometry (authors)	Czech	Slovakia	37103170
Modelling "3H and "1"4C transfer to farm animals and their products under steady state conditions	Galeriu, D; galdan@ifinnipnero; National Institute for Physics and Nuclear Engineering 'Horia Hulubei', IFIN-HH, Department of Environmental Physics and Life, 407 Atomistilor Street, PO Box MG-6, Bucharest-Magurele RO-077125 (Romania); Melintescu, A; National Institute for Physics and Nuclear Engineering 'Horia Hulubei', IFIN-HH, Department of Environmental Physics and Life, 407 Atomistilor Street, PO Box MG-6, Bucharest-Magurele RO-077125 (Romania); Beresford, NA; Centre for Ecology and Hydrology, CEH Lancaster, Lancaster Environment Centre, Library Avenue, Bailrigg, Lancaster LA1 4AP (United Kingdom); Crout, NMJ; University of Nottingham, Division of Agricultural and Environmental Sciences (Environmental Science), School of Bioscience Building,	2007	Journal of Environmental Radioactivity; Nov 2007; p. 205-217; v. 98(1-2); 10.1016/j.jenvrad.2006.11.010; S0265-931X(07)00179-8; Available from http://dx.doi.org/10.1016/j.jenvrad.2006.11.010; Copyright (c) 2007 Elsevier Science B.V., Amsterdam, The Netherlands, All rights reserved.;	Journal	The radionuclides "1"4C and "3H may both be released from nuclear facilities These radionuclides are unusual, in that they are isotopes of macro-elements which form the basis of animal tissues, feed and, in the case of "3H, water There are few published values describing the transfer of "3H and "1"4C from feed to animal derived food products under steady state conditions Approaches are described which enable the prediction of "1"4C and "3H transfer parameter values from readily available information on the stable H or C concentration of animal feeds, tissues and milk, water turnover rates, and feed intakes and digestibilities We recommend that the concentration ratio between feed and animal product activity concentrations be used as it is less variable than the transfer coefficient (ratio between radionuclide activity concentration in animal milk or tissue to the daily intake of a radionuclide)	English	United Kingdom	39054914

Transfer factors for assessing the dose from radionuclides in agricultural products	Ng, YC; Colsher, CS; Thompson, SE; California Univ, Livermore (USA) Lawrence Livermore Lab	1979	13 Jun 1979.; 28 p.; International symposium on biological implications of radionuclides released from nuclear industries.; Vienna, Austria.; 26 - 30 Mar 1979.; UCRL--82545(Rev.1).; CONF-790325--8.; Available from NTIS., PC A03/MF A01.;	Report	Transfer factors to predict the environmental transport of radionuclides through terrestrial foodchains to man were derived from the literature for radionuclides associated with the nuclear fuel cycle We present updated transfer coefficients to predict the concentration of a radionuclide in cow's milk and other animal products and concentration factors (CF) to predict the concentration in a food or feed crop from that in soil Where possible we note the variation of the transfer factor with physical and chemical form of the radionuclide and environmental factors, and characterize the distribution and uncertainty in the estimate The updated transfer factors are compared with those listed in regulatory guides The new estimates lead to recommended changes (both increases and decreases) in the listed transfer coefficients for milk and meat and to the suggested practice of adopting multiple soil-to-plant CF's that vary with the type of crop and soil in the place of a single generic CF to predict the concentration of a radionuclide in a crop from that in soil The updated transfer factors will be useful to assess the dose from radionuclides released from nuclear facilities and		United States	10491059
A general model for the transfer of radioactive materials in terrestrial food chains	Simmonds, JR; Linsley, GS; Jones, JA; National Radiological Protection Board, Harwell (UK)	1979	Sep 1979.; 43 p.; NRPB-R--89.;	Report	A general methodology for modelling the transfer of radionuclides in the food chains to man is described The models are dynamic in nature so that the long-term time dependence of processes in environmental materials can be represented, for example, the build-up of activity concentrations in soils during continuous deposition from atmosphere Modules for radionuclide migration are described in well-mixed (cultivated) soil and undisturbed soil (pasture) The methods by which the transfer coefficients used in plant and animal modules are derived are also given The foodstuffs considered are those derived from green vegetables, grain, and root vegetables together with meat and liver products from the cow and sheep and cow dairy products The dynamic model permits the time dependence of food chain transfer processes to be represented for different land contamination scenarios in particular, the model can be adapted to represent behaviour following a single deposit Using the sensitivity of results to the variation of transfer parameters the model can be used to determine the parts of the food chain where improved data would be most effective in increasing the reliability of radiological assessments a worked example is given (author)		United Kingdom	11521917
1979 annual report	Bundesanstalt fuer Fleischforschung, Kulmbach (Germany, FR)		[nd].; 60 p.; INIS-mf--7067.; Pt. C of the annual report 1979 of Forschung im Geschaeftsbereich des Bundesministers fuer Ernaehrung, Landwirtschaft und Forsten.;	Miscellaneous	The task of the Federal Institute for Meat Research is to serve the population of the FRG and to guarantee its supply with meat and meat products including slaughter fats and products of the poultry-farming including eggs in sufficient quantities, of high nutrition-physiological quality and free from residues hazardous to health In this connection, the Federal Ministries are advised, the consumers protected and the competition within the home meat industry is supported at the same time, the institute helps to expand the scientific level of knowledge To fulfil these tasks, following subjects are being explored Factors of profitable production and use of meat and poultry products fundamentals of keeping, improving, and judging the quality of meat animals, meat, meat and poultry products including eggs the occurrence and the importance of perish-causing, food poisoning or technologically necessary microorganisms the occurrence and the effects of health-hazarding residues in animal food in slaughter animals, meat, meat and poultry products including eggs the technology of processing and preserving meat and the effects of additives and auxiliaries methods of analysing additives and residues and the judgement of meat products and egg products with regard to legal regulations concerning food stuff measuring the radioactive contamination and methods of decontaminating slaughter animals, meat, meat products and poultry products (orig/MG)	German	Germany	13674946

Agricultural production in the United States by county: a compilation of information from the 1974 census of agriculture for use in terrestrial food-chain transport and assessment models	Shor, RW; Baes, CF III; Sharp, RD; Oak Ridge National Lab, TN (USA)	1982	Jan 1982.; 347 p.; ORNL--5768.; Available from NTIS., PC A15/MF A01 as DE82006143.;	Report	Terrestrial food-chain models that simulate the transport of environmentally released radionuclides incorporate parameters describing agricultural production and practice Often a single set of default parameters, such as that listed in USNRC Regulatory Guide 1109, is used in lieu of site-specific information However, the geographical diversity of agricultural practice in the United States suggests the limitations of a single set of default parameters for assessment models This report documents default parameters with a county-wide resolution based on analysis of the 1974 US Census of Agriculture for use in terrestrial food chain models Data reported by county, together with state-based information from the US Department of Agriculture, Economic and Statistics Service, provided the basis for estimates of model input parameters This report also describes these data bases, their limitations, and lists default parameters by county Vegetable production is described for four categories: leafy vegetables vegetables and fruits exposed to airborne material vegetables, fruits, and nuts protected from airborne materials and grains Livestock feeds were analyzed in categories of hay, silage, pasture, and grains Pasture consumption was estimated from cattle and sheep inventories, their feed requirements, and reported quantities of harvested forage The results were compared with assumed yields of the pasture areas reported In addition, non-vegetable food production estimates including milk, beef, pork, lamb, poultry, eggs, goat milk, and honey are described The agricultural parameters and land use information - in all 47 items - are tabulated in four appendices for each of the 3067 counties of the US reported to the Census of Agriculture, excluding those in Hawaii and Alaska		United States	14723929
2nd animal experiment to determine radioactivity in milk and meat (winter feed)	Staatliche Lehr- und Versuchsanstalt fuer Viehhaltung, Aulendorf (Germany, FR); Konstanz Univ (Germany, FR) Fakultaet fuer Physik	1986	1986.; 32 p.; INIS-mf--10728.;	Miscellaneous	High levels of the cesium isotopes 137 and 134, which were released by the Chernobyl reactor accident, are above all present in southern Germany in feeds for the winter of 1986/87 There are two possible pathways of how the fodder was contaminated: by deposition of radioactive material on the exposed parts of the plant and by uptake of radioactive material from the soil via the roots The following questions were to be elucidated by the experiment: 1 Appraisal of the probable radioactive contamination of milk and meat, given the exclusive use of stored fodder from the first growth 2 Determination of transfer factors and transfer rates for milk and meat 3 Determination of the variation range for animal reactions to the use of contaminated fodder 4 Drawing up of recommendations for feeding For this purpose, eight cows were divided into two groups One group fed on hay from the first growth as a sole basic feed, the other on silage fodder consisting of a mixture of hay and grass from the first growth (mixing ratio 40 to 60) The animals were fed individually, the feed being offered twice a day The following parameters were recorded: quantity of milk (daily in kilogrammes), quantity of cesium in milk (every second day, Bq/kilogramme), silage grass fodder (10 samples, Bq/kilogramme), hay (10 samples and one control each week during the experiment, Bq/kilogramme), meat (from one cow out of each group, Bq/kilogramme) (orig/MG)	German	Germany	18089458

Mathematical simulation of the radionuclides flows from both agriculture and natural ecosystems for the purpose of radiation rehabilitation of the contaminated territories	Zhuchenko, YuM; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Gomel' (Belarus) Navukova-dasledchy inst radyyalogii (Inst of Radiology); Vserossijskij nauchno-issledovatel'skij inst sel'skokhozyajstvennoj radiologii i agroehkologii, Obninsk (Russian Federation)	1998	Nov 1998; 48 p.; INIS-BY--010; 24 refs., 9 tabs., 14 figs.;	Miscellaneous	The purpose of work is the creation of universal statistical model for the forecast of an opportunity of rehabilitation of the contaminated territories on the basis of an estimation of radionuclides flows from agricultural and natural ecosystems, their influence on formation of individual and collective population dozes of irradiation and redistribution on territories of regions or the republic The following tasks were decided: formation of the interconnected and reliable databases about dynamics of radiation parameters describing all elements of the trophic circuit - soil, plant, animal, person research and analysis of laws and connections between elements of the chain based on statistical processing of the available information the analysis and modification of calculated models for estimation and forecast of population dose loading due to both internal and external irradiation in the point of view of reception of adequate results at a local principle of rehabilitation of the contaminated territories creation of calculated statistical model of the radionuclide flows from agricultural and natural open ecosystems a comparative estimation of the contributions of various types of ecosystems in formation of dose loading on the population living in rehabilitated region and outside of it approbation of the redistribution models of radionuclides flows inside and outside of the region for estimation of possible rehabilitation measures The original methods of an estimation of a radiation situation on the basis of calculated statistical model of the radionuclides flows from agrarian and natural ecosystems and its advanced modifications are offered On the basis of model calculations the determining role of milk in formation of internal irradiation doze of the inhabitants of the contaminated areas is shown The theoretical approaches for radiation rehabilitation of the contaminated territories on a basis of territorial - local principles are developed The calculation of distribution of radionuclides flows and dose characteristics in frames of both the Mogilev Region and Republic of Belarus are executed The importance of various regions in radiation balance of Belarus is appreciated The practical estimation of a radiation situation and forecast of its easing	Russian	Belarus	30006826
Agricultural industrial production under the conditions of radioactive contamination Chapter 4	Bogdevich, IM; Inst pochvaznawstva i agrakhimii, Minsk (Belarus); Ageets, VYu; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Gomel' (Belarus) Navukova-dasledchy inst radyyalogiiv; Antsypov, GV; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus)	1998	Konoplya, E.F.; Natsyyanal'naya akadehmiya navuk Belarusi, Minsk (Belarus). Inst. radyyabiyalogii (Inst. of Radiobiology); Rolevich, I.V.; Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus) (Ministry for Emergencies); Ministehrstva pa nadzvychajnykh situatsyyakh Rehspubliki Belarus', Minsk (Belarus); Natsyyanal'naya akadehmiya navuk Belarusi, Minsk (Belarus); The Chernobyl accident: consequences and their overcoming; 102 p.; Dec 1998; p. 58-71; INIS-BY--012; 11 figs., 4 tabs.;	Miscellaneous	More than 18 million hectares of agricultural fields that makes up 208% of the available area was exposed to radioactive contamination with cesium 137 density over 37 kBq/sqm, including 265 thousand sq km with cesium 137 contamination density over 1480 kBq/sqm, strontium 90 - more than 111 kBq/sqm and plutonium - over 37 kBq/sqm which were excluded from economic turn-over The behaviour of radionuclides in soil and their transfer to the plant-growing products are described Methods restricting the radionuclides intake into plants such as selection of cultures, soil cultivation, liming of acid soils, fertilizers, protection of plants, water regime regulation and other are given The problems of animal breeding are described For alleviation of the practical use of recommendations there have been calculated the norms of radionuclides permissible content in concrete forage for cattle on the basis of typical rations and the certain scheme of young stock breeding and cattle fattening has been proposed Forecasting of agricultural products contamination and the efficiency of protective measures are given	Russian	Belarus	30006831