## Update website feedfoodtransfer.nl

## Last update September 10, 2024.

Below, a summary of features added and issues addressed on <u>feedfoodtransfer.nl</u>, since its release on January 27 2020, is provided. Changes are given per transfer model, starting with the most recent changes.

Feature	Description		
General website			
Model documentation (14-02-2024)	Addition of page with model documentation.		
Update proclaimer (27-05-2020)	Addition of following sentence "To evaluate compliance with legal standards, the results obtained with the simulation of the transfer of the contaminant from feed to animal products should be confirmed by analytical results".		
Transfer model aflatoxin B1 - dairy cow			
Version 1.1 (02-03-2021)	<ul> <li>Changes were made to improve the user-friendliness of the model including: <ul> <li>The daily milk production can now be changed</li> <li>A warning will be given when negative values are entered in the input fields</li> <li>Results for milk (aflatoxin M1) and results for muscle, kidney and milk (aflatoxin B1 and M1) can be displayed simultaneously.</li> <li>Graph functions of Plotly are added.</li> <li>The report now contains the proclaimer, the model version used, the date, all input data and the output as visible online when the report is made.</li> </ul> </li> <li>The manual is updated to comply with version 1.1.</li> </ul>		
Version 1.0 (27-01-2020)	Release		
Transfer model dioxins (total TEQ) - dairy cow			
Version 1.2	Changed a differential equation to avoid an increase in total TEQ		
(14-05-2024)	concentrations in milk when the milk production increases.		
Version 1.1 (02-03-2021)	<ul> <li>Body fat concentrations were incorrectly calculated in version 1.0. This is corrected in version 1.1.</li> <li>Changes were made to improve the user-friendliness of the model including: <ul> <li>A warning will be given when negative values are entered in the input fields.</li> <li>Results for milk fat and body fat can be displayed simultaneously.</li> <li>Graph functions of Plotly are added.</li> <li>The report now contains the proclaimer, the model version used, the date, all input data and the output as visible online when the report is made.</li> </ul> </li> </ul>		
Version 1.0	Release		
(27-01-2020)			

Transfer model PFOS / PF	OA – dairy cow
Version 2.0	The transfer model is updated and can now also be used to calculate
(21-03-2022)	the transfer of PFOA. The manual is updated to comply with version
,	2.0.
Version 1.1	A warning will be given when negative values are entered in
(02-03-2021)	the input fields
	Results for a lumped compartment based on the weighed
	sum of liver, kidney and muscle weight are now visible and
	can be displayed simultaneously with the results for blood
	and milk.
	The manual is updated to comply with version 1.1.
Version 1.0	Release
(01-12-2021)	
Transfer model cadmium	- pig
Version 2.0	The transfer model is updated and a default time-dependent intake
(11-01-2023)	(in kg 88% dry matter per day) starting at day 28 (compound feed) or
	at day 66 (wet mixes) is available. The user can still use a specific
	feeding regime instead of this default regime.
	In addition changes were made to improve the user-friendliness of
	the model including:
	A warning will be given when negative values are entered in
	the input fields.
	Results for liver and kidney and the feed intake curve can be
	displayed simultaneously.
	<ul> <li>Graph functions of Plotly are added.</li> </ul>
	• The report now contains the proclaimer, the model version
	used, the date, all input data and the output as visible online
	when the report is made.
	The manual is updated to comply with version 2.0.
Version 1.0	Release
(27-01-2020)	
Transfer model dioxins (to	otal TEQ) - pig
Version 2.0	The transfer model is updated and a default time-dependent intake
(21-03-2022)	(in kg 88% dry matter per day) starting at day 28 (compound feed) or
	at day 66 (wet mixes) is available. The user can still use a specific
	feeding regime instead of this default regime.
	In addition changes were made to improve the user-friendliness of
	the model including:
	A warning will be given when negative values are entered in
	the input fields.
	Results for body fat and central compartment and the feed
	intake curve can be displayed simultaneously.
	Graph functions of Plotly are added.
	The report now contains the proclaimer, the model version
	used, the date, all input data and the output as visible online
	when the report is made.
Manajan ( )	The manual is updated to comply with version 2.0.
Version 1.0	Release
(27-01-2020)	

Transfer model dioxins (tot	al TEQ) – laying hen
Version 1.1	For parameters y, F <sub>abs</sub> and k a set of optimal solutions can only be
(21-03-2022)	defined based on the upper and lower boundaries of allowable
	parameter values, Parameters y, $F_{abs}$ and k were set to the boundary
	solution Fabs, min; $k_{min} = 0$ ; $y_{max}$ ; $W_{fmin}$ ). This has basically no
Version 1.0	consequences for the estimations of the transfer model. Release
(01-12-2020)	Release
	ngener-specific) – laying hen
Version 1.4	The delay between contamination and egg concentration was
(14-05-2024)	removed. This only shifts the peak of the egg concentration towards
	the end of exposure. The height of the peak concentration does not
	change. In addition, a bug was fixed where the egg concentration
	was divided by the laying efficiency, resulting in an overestimation of
	the egg concentrations.
Version 1.3	For parameters y, F <sub>abs</sub> and k a set of optimal solutions can only be
(21-03-2022)	defined based on the upper and lower boundaries of allowable
(21 03 2022)	parameter values, Parameters y, $F_{abs}$ and k were set to the boundary
	solution $F_{abs}$ , min; $k_{min} = 0$ ; $y_{max}$ ). This has basically no consequences
	for the estimations of the transfer model.
Version 1.2	The unit for the contaminant concentrations in feed in the
(02-03-2021)	downloadable xlsx.file is corrected
Version 1.1	Changes were made to improve the user-friendliness of the model
(01-12-2020)	including:
(01-12-2020)	-
	The CVS template for entering the contaminant     concentrations in food is replaced by an vis file
	concentrations in feed is replaced by an xls.file
	<ul> <li>A warning will be given when negative values are entered in the input fields</li> </ul>
	<ul> <li>The option to insert a regulatory limit for body fat in</li> </ul>
	addition to egg fat is added.
	• The input fields for the congeners are now listed in separate
	tabs for PCD/F and dl-PCB's.
	<ul> <li>Results for egg yolk fat and body fat can be displayed simultaneously.</li> </ul>
	• Results for all congeners can be displayed simultaneously.
	Graph functions of Plotly are added.
	• The report now contains the proclaimer, the model version
	used, the date, all input data and the output as visible
	online when the report is made.
	The manual is updated to comply with version 1.1.
Version 1.0	Release
(27-01-2020)	
	- -like polychlorinated biphenyls (ndl-PCBs)(congener-specific) – laying
hen	
Version 1.1	For parameters y, F <sub>abs</sub> and k a set of optimal solutions can only be
(10-09-2024)	defined based on the upper and lower boundaries of allowable
	parameter values, Parameters y, F <sub>abs</sub> and k were set to the boundary
	solution $F_{abs}$ , min; $k_{min} = 0$ ; $y_{max}$ ). $F_{abs}$ was first set to one, resulting to
	a slight overestimation. Also, the delay between contamination and
	egg concentration was removed. This only shifts the peak of the egg
	concentration towards the end of exposure. The height of the peak

Version 1.0 (11-01-2023)	concentration does not change. Finally a bug was fixed where the egg concentration was divided by the laying efficiency, resulting in an overestimation of the egg concentrations. Release	
Transfer model organochlorine pesticides – laying hen		
Version 1.1 (14-05-2024)	The delay between contamination and egg concentration was removed. This only shifts the peak of the egg concentration towards the end of exposure. The height of the peak concentration does not change. In addition, a bug was fixed where the egg concentration was divided by the laying efficiency, resulting in an overestimation of the egg concentrations. Finally, changes were made with respect to the physiological values used in the model, to make them consistent with the other laying hen models. Specifically, the following changes were made: Laying efficiency: 0.91 -> 0.9 Volume of the central compartment: 1850 cm <sup>3</sup> -> 1840 cm <sup>3</sup> Weight of an egg: 57.5g -> 60g	
Version 1.0 (30-01-2023)	Release	