

Essbare Insekten: Nachhaltiger Fleischersatz oder bloß eine Nische?

Sind Insekten die Zukunft unserer Ernährung? Ein Blick auf Zulassung, Nährwerte und Sicherheit von Insektenprodukten als nachhaltige Fleischalternative.



Bild: Pixabay

±gY_hYb'U`g'BU\fib[ga]hhY`gcf[Yb']b'9ifcdU'bcW\']a a Yf'ZØf
[Ya]gW\hY'FYU_h]cbYb'''K À\fYbX'g]Y']b'j]Y`Yb'@ÀbXYfb'XYf'K Y`h
`Ab[gh'U`g'U``hÀ[`]W\Y'DfchY]bei Y``Y'X]YbYbž'g]bX'g]Y'\]Yfni `UbXY
bcW\'Y]b'i b[Ykc\bhYf'5bV`]W_'Ui Z'XYa 'HY``Yf'''8cW\'a]h'XYb
'Øb[ghYb'Ni `Uggi b[Yb'Xi fW\'X]Y'9ifcdÀ]gW\Y'I b]cb'i bX'XYf
k UW\gYbXYb'BUW\ZfU[Y'bUW\'bUW\\U`h][Yb'5`hYfbUh]jYb'ni
: `Y]gW\'ghY][h'XUg' ₺hYfYggY'Ub' ₺gY_hYb'U`g'a Ò[`]W\Y
DfchY]bei Y``Y'''6YgcbXYfg'DfcXi_hY'Ui Z' ₺gY_hYbVUg]g'U`g'9fgUhn
ZØf'\Yf_Òa a `]W\Y': `Y]gW\\dfcXi_hY'fØW_Yb'XUVY]'ni bY\aYbX']b
XYb': c_i g'XYf'@YVYbga]hhY`]bXi qhf]Y''

'9]b'i a k Y`hZfYi bX`]WXYfYf'K Y['XYf DfchY]bdfcXi _h]cb3

8]Y'_cbj Ybh]cbY``Y': `Y]gW\dfcXi _h]cb']gh'a]h'Ybcfa Ya
FYggci fW'bj YfVfUi W\'j YfVi bXYb"'A UggYbh]Yf\U`hi b['VYbOh][h
[fc»Y'AYb[Yb'Ub'K UggYfž: i hhYf'i bX'@UbXž'k À\fYbX'g]Y
[`Y]W\nY]h]['Yf\YV`]W\Y'AYb[Yb'Ub'HfY]V\Ui g[UgYb'ZfY]gYhnh"

*DgY_hYb'\]b[Y[Yb'V]YhYb'Y]bY'bUW\\U`h][Y'5`hYfbUh]j Y.'G]Y
VYbOh][Yb'k Yb][Yf': i hhYfž'k Yb][Yf'K UggYf'i bX'k Yb][Yf'D`Uhn'
i bX'dfcXi n]YfYb'XUVY]'k Y]hUi g'k Yb][Yf'7C "'; YfUXY']b'NY]hYb
XYg'?`]a Uk UbXY`g'_ObbhY'XUg'Y]b'YbhgW\Y]XYbXYf'J cfhY]`'gY]b"

8cW k]Y g]Y\h'Yg a]h'XYa BÀ\fk Yfh'Ui g3

#bgY_hYb Ybh\U`hYb 'U``Y 'YggYbn]Y``Yb '5a]bcgÀi fYbžg]bX 'fY]WX 'Ub
Ca Y[U!' !: YhhgÀi fYbž'6!J]hUa]bYb ii bX k]WX h][Yb 'A]bYfU`ghcZZYb
k]Y '9]gYb ii bX 'N]b_"'J]Y`Y 'DfcXi _hY 'bi hnYb ']bnk]gWX Yb
#bgY_hYba Y\``U`g' < Ui dhVYghUbXhY]`ž'i a 'XUfUi g'6i f[Yf!DUhh]Ygž
K ØfghY 'cXYf'UbXYfY': `Y]gWXYfgUhndfcXi _hY '\Yfni ghY``Yb"
; YgWXa UW_`]WX 'gc``Yb 'X]YgY '5`hYfbUh]j Yb 'Ub '\Yf_Òa a `]WXY
: `Y]gWXdfcXi _hY '\YfUbfY]WXYb' 'a]h'XYa 'J cfhY]``Y]bYg'XYi h`]WX
VYggYfYb 'Ò_c`c[]gWXYb': i » UVXfi W_g"</pre>

$5_nYdhUbn'ibX'JcfifhY]`Y.'G]bX'k]f'VYfY]h$ $ZØf'=bgY_hYbZ`Y]gWX3$

 $C\ Vk\ c\ ``XYf'bUW\&\ U`h][\ Y`5gdY_h'ØVYfnYi\ [\ hž'V`Y]Vh'X]Y':\ fU[\ Y.\ G]bX ?\ cbgi\ a\ YbhYb\ 'VYfY]hž' & gY_hYbdfcXi\ _hY']b']\ fYb' GdY]gYd`Ub'ni]bhY[\ f]YfYb3'Ghi X]Yb'nY][\ Ybž'XUgg'j\]Y`Y'A\ YbgW&Yb'bcW&']a\ a\ Yf\ Y]bY'5VbY][\ i\ b[\ '[\ Y[\ YbØVYf' & gY_hYb'U`g'BU\fi\ b[\ '\ UVYb'' 8 Yf\ ;\ YXUb_Yž'Y]b' & gY_hYb!6i\ f[\ Yf'ni 'YggYbž']gh'ZØf'j\]Y`Y'i\ b[\ Yk\ c\bh'' 8 cW&'Y'a\ Y\f'X]YgY'DfcXi\ _hY'U`g'bcfa\ U`Y'5`hYfbUh]j\ Yb']a\ '<UbXY`dfAgYbh'g]bXž'XYghc'[fÒ»\ Yf'k\]fX'X]Y'5\ _nYdhUbn'''HUhgAW`]W&'ghY][\ h\ XUg' & hYfyggY'VYgcbXYfg'i\ bhYf'\Øb[YfYbž'YfbA\fi\ b[\ gVYk\ i\ gghYb\ ?cbgi\ a\ YbhYb''$

8 UVY] gd]Y`h'Ui W\ 'X]Y '5 fh'XYf'J YfUfVY]hi b['Y]bY'[fc » Y'F c``Y"

K À\fYbX'[UbnY' \(\pm \) gY_hYb'Z\(\pm \) f'j]Y`Y'Y]bY' < \(\pm \) fXY'XUfghY``Ybž'g]bX

A Y\`Y'CXYf'Di `j Yfž'X]Y']b'6i f[Yfb'CXYf': `Y]gW\YfgUhndfcXi _hYb

j YfUfVY]hYh'k YfXYbž'`Y]W\ hYf'U_nYd hUVY`"'HUhgÀW\`]W\ 'Ybh\U`hYb

Y]b][Y'\Yf_Òa a `]W\Y'DfchY]bf]Y[Y``CXYf'6U\W_k UfYb'VYfY]hg

_`Y]bY'A Yb[Yb'Ub' \(\pm \) gY_hYba Y\`' 'CZhž'C\bY'XUgg'J YfVfUi W\Yf'Yg

X]fY_h'VYa Yf_Yb"

; YgYhn`]WXY'Jcf[UVYb'ibX'G]WXYf\Y]h

GY]h'XYf'9I!Ni `Uggi b['ZØf'+bgY_hYb'U`g' bYi Ufh][Y'@YVYbga]hhY` a ØggYb'< YfghY``Yf'ghfYb[Y'J cf[UVYb'Y]b\U`hYb"'6Yj cf'Y]b DfcXi _h'Ui Z'XYb'A Uf_h'_ca a hž'k]fX'Yg'j cb'XYf'9i fcdÀ]gW\Yb 6Y\ÒfXY'ZØf'@YVYbga]hhY`g]W\Yf\Y]h'fP: G5Ł'[YdfØZh"'8 UVY]'k]fX i bhYfgi W\hž'cV'Yg'[Ygi bX\Y]h`]W\Y'F]g]_Yb'[]Vh' 'Yhk U'Xi fW\ a Ò[`]W\Y'5``Yf[YbY'cXYf'?cbhUa]bUbhYb"

K]Y'k]fX']b'² ghYffY]WX g]WX Yf[YghY``hž'XUgg X]Y'@YVYbga]hhY``a]h'=bgY_hYb YbhgdfYWXYbX'XYb'Jcf[UVYb']b'JYf_Y\f [YVfUWXh'k YfXYb3

6Y]'YggVUfYb'\DgY_hYb'\UbXY\h'Yg'g]W\'ia' @YVYbga]hhY\\ Ž
XYZ]b]Yfh'YbhgdfYW\YbX'XYf'9; !6Ug]gj YfcfXbi b['fl9; L'Bf"
%+, #&\$\$&'[Ya"'5fh"'&"'\D'2 ghYffY]W\'[]\h'ZØf'I bhYfbY\a Yf.]bbYbŽ
X]Y'X]YgY'H]YfY']b'JYf_Y\f'Vf]b[Yb'k c``YbŽ'XYf'FYW\hgfU\a Yb'XYg
ÒghYffY]W\]gW\Yb'@YVYbga]hhY\\g]W\Yf\Y]hg!'i bX
JYfVfUi W\YfgW\i hn[YgYhn'fl@A GJ; L''8]Y
@YVYbga]hhY\\i bhYfbY\a Yf.]bbYb'g]bX'Ui Z'U``Yb'DfcXi_h]cbg!Ž
JYfUfVY]hi b[g!'i bX'JYfhf]YVgghi ZYb'j YfUbhk cfh\]W\'XUZØfž'XUgg
X]Y'@YVYbqa]hhY\`cXYf': i hhYfa]hhY\`XYb'5bZcfXYfi b[Yb'XYg

8]Y'JYfcfXbi b['ff9] Ł'&\$%+#'&) 'fY[Y'h'Ua h']W\Y'?cbhfc'`Yb'i bX k Y]hYfY'VY\ÔfX`]W\Y'A U» bU\a Yb'ni f'9]b\U'hi b['XYg'@YVYbg!'i bX :i hhYfa]hhY`fYW\hg'gck]Y'XYf'JcfgW\f]ZhYb'ni 'H]Yf[Ygi bX\Y]hž H]YfgW\i hnž'DZUbnYb[Ygi bX\Y]h'i bX'DZUbnYbgW\i hna]hhY`b'Ui Z 9I !9VYbY"'& 2 ghYffY]W\'YfZc`[Yb'X]YgY'?cbhfc``Yb'Ui Z'; fi bX`U[Y XYg'@A GJ; 'f@YVYbga]hhY`g]W\Yf\Y]hg!'i bX JYfVfUi W\YfgW\i hn[YgYhnYgŁ'i bX'cf]Ybh]YfYb'g]W\'Ua Jcfgcf[Ydf]bn]d'gck]Y'Y]bYa'f]g]_cVUg]YfhYb'5bgUhm"'N]Y``]gh'Ygž X]Y'@YVYbga]hhY`g]W\Yf\Y]h'ni '[Yk A\f'Y]ghYb'i bX JYfVfUi W\Yf.]bbYb'j cf']ffYZØ\fYbXYb'5b[UVYb'ni 'gW\ØhnYb" 8Yf'a dcfh'j cb'ZØf'XYb'a YbgW\`]W\Yb'JYfnY\f'VYgh]a a hYb &gY_hYb'Ui g'8f]hhghUUhYb']gh'bi f'ni 'Agg][ž'k Ybb'X]YgY'Ui g'XYb']b 5b\Ub['LJ'XYf'JYfcfXbi b['ff9] Ł'&\$&\#(\$)'Ui Z[YZØ\fhYb @AbXYfb'ghUa a Yb"'5_hi Y``'[Y\ÔfYb'XUni '?UbUXUž'X]Y'GW\k Y]nž XUg'JYfY]b][hY'?\Ob][fY]W\Z'H\U]'UbXZ'J]YhbUa 'i bX'GØX_cfYU"

; $]Vh^{\gamma}g^{\gamma}F]WXh^{\delta}b]Yb^{\gamma}ZØf^{\gamma}X]Y^{\gamma}< YfghY^{\delta}ib[^{\gamma}j^{\gamma}cb]$ =bgY_hYb^U^g^@YVYbga_]hhY^3

8]Y 'ÒghYffY]WX]gWX Y '@Y]h']b]Y 'ZØf'[YnØWX hYhY '\bgY_hYb'U'g @YVYbga]hhY`'V]YhYh'Y]bY'Cf]Ybh]Yfi b['ZØf'DfcXi _h]cbž'J Yfhf]YVž @YVYbga]hhY`g]WXYf\Y]h'i bX'VY\ÒfX`]WXY', VYfk UWXi b["'G]Y Ybh\À`h'j cb'9l dYfh]bbYb'ZYgh[Y`Y[hY'?f]hYf]Yb'i bX I bhYfgi WXi b[gdUfUa YhYfž'X]Y'g]WXYfghY``Yb'gc``Ybž'XUgg [YnØWX hYhY'\bgY_hYb'U`g'@YVYbga]hhY`'[Ygi bX\Y]h`]WX i bVYXYb_`]WX'g]bX"

@Y]h`]b]Yb`ZØf`[YnØW\hYhY`=bgY_hYb`U`g`@YVYbga]hhY``\YfUig[Y[YVYb'jca`6ibXYga]b]ghYf]ia`Gcn]U`ž; YgibX\Y]hž`DZ`Y[Y`ibX`?cbgiaYbhYbgW\ihn

=bgY_hYb'U`g'5`hYfbUh]j Y'ZØf'X]Y'Ni_i bZh3

CV'±0gY_hYbZY]gW\'hUhgÀW\`]W\'Y]bY'5`hYfbUh]j Y'ni \Yf_Òa a`]W\Yb':`Y]gW\dfcXi_hYb'k YfXYb'_Ubbž'\Àb[h'j cb a Y\fYfYb:: U_hcfYb:UV":8Yf'Ò_c`c[]gWXY'JcfhY]``]gh'i bVYghf]hhYbž
XcWX'Yg'VfUi WXh'bcWX'NY]hž'V]g'g]WX'X]YgY'DfcXi _hY']a 'A Uf_h
YhUV`]YfYb":8]Y'6YfY]hgWXUZh'XYf'?cbgi a YbhYb'ghY][h'YXcWX
ghYh][ž']bgVYgcbXYfY'k Ybb'=bgY_hYb']b': cfa 'j cb
: `Y]gWXYfgUhndfcXi _hYb'Ui Z'XYb'A Uf_h'_ca a Ybž'X]Y']b
; YgWXa UW_i bX'?cbg]ghYbn'Ub'VY_UbbhY'@YVYbga]hhY`Yf]bbYfb"

: YghighY\h '8]Y '@Y VYbga]hhY`]bXi ghf]Y 'gYhnhini bY\a YbX'Ui Z

dgY_hYb'U`g'bUW\\U`h][Y'DfchY]bei Y``Y''G]Y'_ObbhYb'Y]bY'k]W\h][Y

Fc``Y']b'XYf'9fbÀ\fi b['XYf'Ni _i bZh'gd]Y`Yb'''cV'U`g

DfchY]bYf[Abni b['cXYf'U`g'5`hYfbUh]j Y'ZØf'_`Ugg]gW\Y
: `Y]gW\dfcXi _hY'''8]Y'9bhgW\Y]Xi b[ž'cV'dgY_hYb']b'XYf'Y][YbYb

9fbA\fi b['D`Uhn'Z]bXYbž'V`Y]Vh'YXYa 'gY`Vgh'ØVYf`UggYb''8cW\
k Yf'bUW\Y]bYf'bUW\\U`h][Yb'i bX'bA\fghcZZfY]W\Yb'5`hYfbUh]j Y

gi W\hž'gc``hY'Y]bYb'6`]W_'Ui Z'X]YgY']bbcj Uh]j Yb'DfcXi _hY'k YfZYb''

.

6 Ygi WX Yb G]Y i bg Ui Z Z Y]gWXi b X Wc "Uh