

Landbouw, voeding en gezondheid in Suriname



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Landbouw, voeding en gezondheid in Suriname

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1977: Arts, Universiteit van A'dam

1978 - 1987: Algemeen arts in Suriname

1978 Bedrijfsarts Stg. Machinale Landbouw, Wageningen

1987 - 1990: Bedrijfsgeneeskunde (A'dam)

1989 – 1992 Bedrijfsarts Luxan B.V. Elst, Gelderland

23 april 1989 oprichting BGZ

Landbouw, voeding en gezondheid in Suriname



De groene economie, groen = *duurzaam* &

ten tijde van de actieve arbeid, *gezond* maar ook na de pensionering



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Landbouw

- Gezondheidsrisico's (werker/verwerker) = beroepsziekten
- Product aansprakelijkheid (consument) = ziekten, kankers
- Kwik, meten (cassave), *Minamataverdrag*
- pesticiden, residu analyse, *Stockholm Convention*
- gevaren van GM

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Chemische bestrijdingsmiddelen

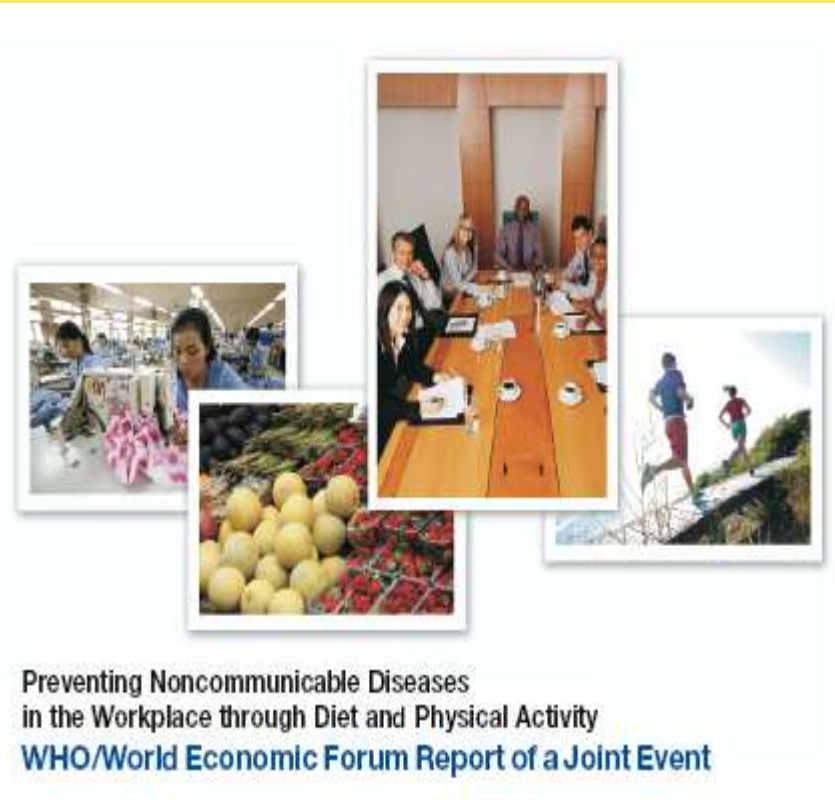
- Gechloreerde koolwaterstoffen DDT, Drins, lindaan (scabies, hoofdluis) = gammexaan
- Organofosfaten = organofosforverbindingen, Ach-remmers, curare (OK gebruik) , malathion, parathion, zenuwgas, **glyphosate (roundup)**
- Carbamaten = urethanen, furadan/carbofuran, zeer giftig ook ACh-remmer, isocyanaten
- NaPCP, Gramoxone = (Luxan) paraquat
- Pyrethroiden, per-/deltamethrine

Biologische bestrijdingsmiddelen

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De groene economie, groen = *MVO*

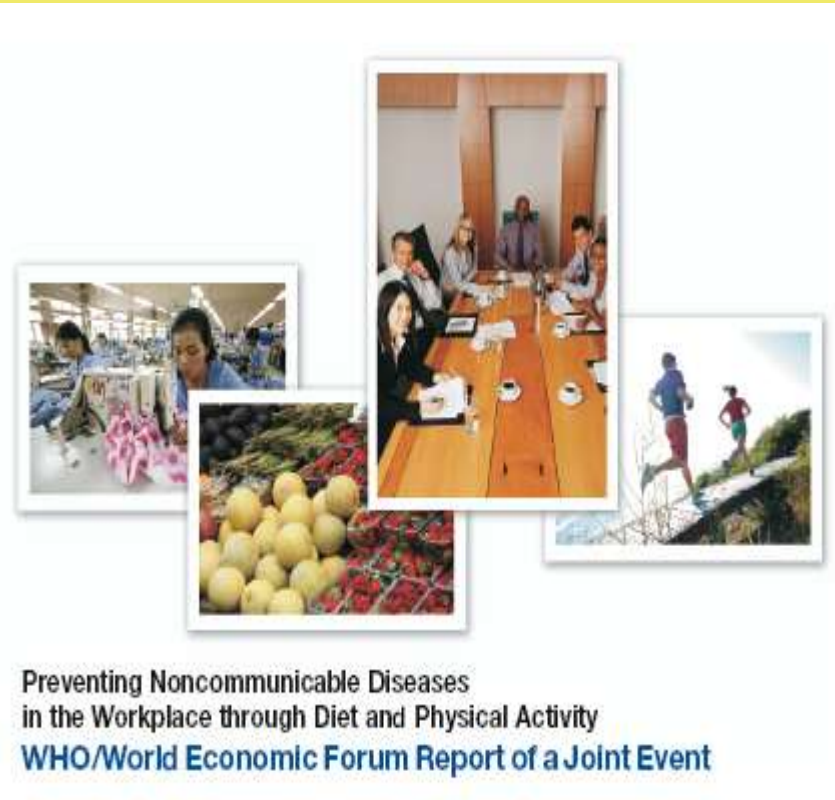


Voeding (schoon)

- Vetten
- Eiwitten
- Koolhydraten
- Vitaminen, mineralen
- *WATER*
- *Wat, waar, hoeveel, hoe vaak en op welk tijdstip*

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De groene economie, groen = *MVO*



BREAD
ROLLS
TORTILLA
RICE
PASTA
POTATO
CORN
DRIED BEANS
SODAS
FRUIT
FRUIT JUICE
MILK
YOGURT
CANDY
CAKE
COOKIES
ICE CREAM

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De groene economie, groen = *MVO*

Beweging

- Wandelen, lopen, yoga (hatha), fitness
- Sporten (recreatie / wedstrijd)
- Zwemmen
- Inspanning min. 30 minuten en min. 3x /week
- *Verbranden van opgenomen caloriën*



Preventing Noncommunicable Diseases
in the Workplace through Diet and Physical Activity
WHO/World Economic Forum Report of a Joint Event

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De groene economie, groen = *Public &*

Occupational Health



- Noncommunicable Diseases (NCD's)
- In the Workplace = RI&E = BGZ (Occupational Health),
- Diet and Physical Activity = (Public Health), vooral in de omgeving en thuis
- Aanstellings- en periodieke keuring

Sleutelwoord = PMO

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De groene economie, groen = *Public &*

Occupational Health



Preventing Noncommunicable Diseases
in the Workplace through Diet and Physical Activity
WHO/World Economic Forum Report of a Joint Event

| gem. Leeftijd | 37 | | | | | |
|---------------|-----|-------|--------|--------|--------|-----|
| | | | | ll cm | gew/kg | BMI |
| -30 jr | 65 | | | | | |
| 30 - 40 jr | 99 | | | | | |
| 40 - 50 jr | 46 | 183 | m | 171 | 77 | 26 |
| > 50 jr | 29 | | | | | |
| | 239 | 56 | v | 159 | 67 | 26 |
| | | RRsys | RRdias | n-gluc | chol | |
| m | | 128 | 79 | 5.8 | 4.4 | |
| v | | 116 | 72 | 5.6 | 4.4 | |

Sleutelwoord = PMO

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| ll in cm | gew/kg | BMI | Buikomv | RRsys | RRdias | pols/min | Hb | leuco's | diff | BSE | n-gluc | kreat | chol | HDL | trigl | LDL | Ratio |
|----------|--------|-----|---------|-------|--------|----------|------|---------|------|-----|--------|-------|------|-----|-------|-----|---------|
| 177 | 120 | 38 | 118 | 164 | 110 | 90 | 9.0 | 10.7 | gb | 21 | 6.9 | 105 | 8.6 | 0.9 | 2.4 | 7 | 9.6 |
| 175 | 115 | 38 | 108 | 140 | 81 | 81 | 9.6 | 6.7 | gb | 15 | 5.4 | 101 | 6.9 | 0.7 | 1.6 | 6 | 9.9 |
| 166 | 70 | 25 | 89 | 130 | 80 | 90 | 10.5 | 4.7 | eo's | 4 | 5.4 | 98 | 6.7 | 1.5 | 1.5 | 5 | 4.5 |
| 165 | 65 | 24 | 89 | 120 | 74 | 100 | 9 | 6.8 | gb | 19 | 5.4 | 78 | 6.5 | 1.1 | 1.1 | 5 | 5.9 |
| 173 | 76 | 25 | 89 | 128 | 89 | 96 | 10.0 | 9.0 | eo's | 10 | 6.1 | 85 | 6.3 | 1.2 | 3.2 | 4.0 | 5.3 |
| 178 | 101 | 32 | | 134 | 76 | 79 | 10.3 | 5.7 | eo.s | 6 | 6.2 | 113 | 6.3 | 1.2 | 1.1 | 5 | 5.3 |
| 174 | 87 | 29 | 93 | 150 | 70 | 100 | 9.8 | 5.7 | gb | 18 | 5.8 | 97.0 | 6.2 | 1.3 | 1.2 | 5.0 | 4.8 |
| 167 | 60 | 22 | 78 | 140 | 90 | 72 | 9.9 | 8.1 | gb | 9 | 6.5 | 99 | 6.2 | 1.6 | 1.0 | 4 | 3.9 |
| 168 | 75 | 27 | 89 | 146 | 89 | 87 | 8.8 | 5.3 | gb | 11 | 6.3 | 99.0 | 6.2 | 1.7 | 1.1 | 4.0 | 3.6 |
| 180 | 103 | 32 | | 121 | 65 | 58 | 9.2 | 6.7 | gb | 28 | 5.7 | 75 | 6.2 | 1.1 | 1.4 | 5 | 5.6 |
| 166 | 102 | 37 | 111 | 167 | 93 | 68 | 9.6 | 10.8 | eo's | 13 | 6.4 | 94 | 6.1 | 1.1 | 1.5 | 5.0 | 5.5 |
| 168 | 70 | 25 | 89 | 132 | 70 | 88 | 9.7 | 6.5 | gb | 12 | 6.5 | 131 | 6.1 | 1.1 | 1.5 | 5 | 5.5 |
| 170 | 100 | 35 | 104 | 120 | 76 | 76 | 8.1 | 7.4 | eo's | 78 | 4.7 | 76 | 6.0 | 1.3 | 0.7 | 4.3 | 4.6 |
| 171 | 90 | 31 | 102 | 144 | 90 | 88 | 9.6 | 7.7 | gb | 11 | 5.6 | 107 | 6.0 | 0.8 | 5.0 | 4 | 7.5 |
| 162 | 61 | 23 | 77 | 170 | 140 | 92 | 8.9 | 4.5 | gb | 6 | 5.3 | 107 | 6.0 | 1.4 | 0.9 | 4 | 4.3 |
| 169 | 105 | 37 | 107 | 161 | 92 | 88 | 10.4 | 10.3 | gb | 20 | 6.5 | 111 | 6.0 | 1.1 | 3.7 | 4 | 5.5 |
| | | | | | | | 9.1 | 8.6 | gb | 15 | 5.8 | 87 | 5.9 | 1.3 | 1.9 | 4 | 4.5 |
| 175 | 92 | 30 | 100 | 160 | 100 | 88 | 9.6 | 7.1 | gb | 11 | 6.1 | 92 | 5.8 | 1.5 | 1 | 4 | 3.9 |
| 179 | 94 | 29 | 106 | 130 | 80 | 72 | 9.1 | 9.9 | gb | 20 | 6.9 | 80 | 5.8 | 1.2 | 1.8 | 4 | 4.8 |
| 179 | 106 | 33 | 108 | 150 | 100 | 88 | 9.7 | 4.9 | gb | 6 | 5.4 | 119 | 5.7 | 1.1 | 1 | 4 | 5.2 |
| 173 | 84 | 28 | 85 | 130 | 90 | 100 | 7.6 | 7.9 | gb | 69 | 7.2 | 138 | 5.7 | 1.5 | 1.7 | 4 | 3.8 |
| 184 | 85 | 25 | 92 | 130 | 92 | 72 | 8.8 | 4.7 | gb | 18 | 5 | 107 | 5.6 | 1.1 | 1.8 | 4 | 5.1 |
| 160 | 48 | 19 | | 108 | 66 | 74 | 8.2 | 5.0 | gb | 19 | 5.3 | 86 | 5.6 | 1.3 | 1.2 | 4 | 4.3 |
| 169 | 89 | 31 | | 140 | 84 | 72 | 8.2 | 8.2 | gb | 25 | 4.9 | 75 | 5.6 | 1.3 | 1.3 | 4.0 | 4.3 |
| 174 | 78 | 26 | 90 | 116 | 71 | 78 | 0.3 | 6.8 | gb | 16 | 5.3 | 99.0 | 5.6 | 1.0 | 1.9 | 4.0 | 5.6 |
| 161 | 70 | 27 | | 117 | 68 | 79 | 9.4 | 9.7 | gb | 8 | 6.1 | 97 | 5.6 | 0.9 | 1.0 | 5.0 | 6.2 |
| 157 | 63 | 26 | 93 | 147 | 87 | 82 | 9.7 | 6.3 | gb | 5 | 5.6 | 104 | 5.6 | 0.6 | 1.2 | 5.0 | 9.3 |
| 168 | 66 | 23 | | 160 | 106 | 74 | 9.4 | 7.5 | eo's | 14 | 6.8 nn | 110 | 5.5 | 1.5 | 3.4 | 3 | 3.7 |
| 165 | 62 | 23 | | 118 | 79 | 84 | 8.4 | 7.6 | gb | 35 | 5.7 | 77 | 5.5 | 1.3 | 1.1 | 4 | 4.2 |
| 173 | 70 | 23 | | 133 | 73 | 45 | 9 | 4.4 | gb | 17 | 5.5 | 115 | 5.5 | 1.4 | 0.8 | 4 | 3.9 |
| 172 | 85 | 29 | 94 | 130 | 80 | 76 | 9.9 | 6.7 | gb | 11 | 5.7 | 106 | 5.4 | 0.8 | 0.9 | 4 | 6.8 |
| 163 | 51 | 19 | 70 | 110 | 60 | 64 | 8.6 | 3.4 | eo's | 15 | 8.2 | 80 | 5.4 | 1.5 | 0.8 | 4 | 3.6 |
| 171 | 97 | 33 | 103 | 144 | 94 | 103 | 9.2 | 5.2 | gb | 16 | 7.9 | 94 | 5.4 | 1.2 | 2.2 | 4 | 4.5 |
| 166 | 53 | 19 | 71 | 105 | 58 | 69 | 8.4 | 7.7 | gb | 11 | 5.8 | 98 | 5.4 | 1.6 | 0.5 | 4 | 3.4 |
| 169 | 51 | 18 | | 110 | 70 | 72 | 7.8 | | gb | 65 | 4.9 | 1.8 | 5.4 | | | | #DIV/0! |
| 178 | 99 | 31 | 102 | 132 | 90 | 75 | 10.4 | | gb | | 5.6 | | 5.3 | 0.9 | 2.0 | 4.0 | 5.9 |
| 170 | 69 | 24 | 88 | 130 | 80 | 96 | 9.7 | 7.6 | gb | 8 | 4.2 | 82 | 5.3 | 1.3 | 2.2 | 4 | 4.1 |
| 179 | 103 | 32 | 100 | 142 | 74 | 70 | 9.6 | 4.2 | gb | 2 | 6.6 | 113 | 5.3 | 1.7 | 1.0 | 3 | 3.1 |
| 192 | 95 | 26 | 91 | 120 | 70 | 80 | 8.6 | 6.4 | gb | 12 | 4.8 | 115 | 5.2 | 1.1 | 1.3 | 4 | 4.7 |
| 171 | 83 | 28 | 90 | 130 | 85 | 85 | 10.1 | 6.5 | gb | 9 | 5.1 | 103 | 5.2 | 1.4 | 1.0 | | 3.7 |

Sleutelwoord = PMO

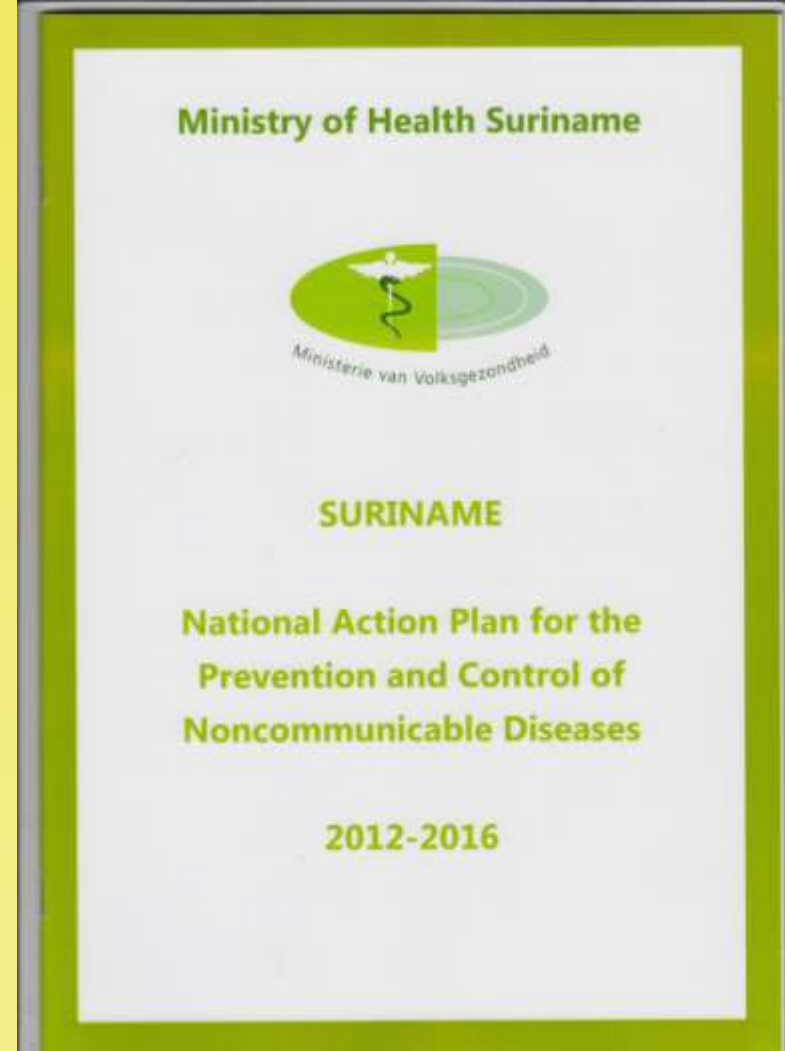
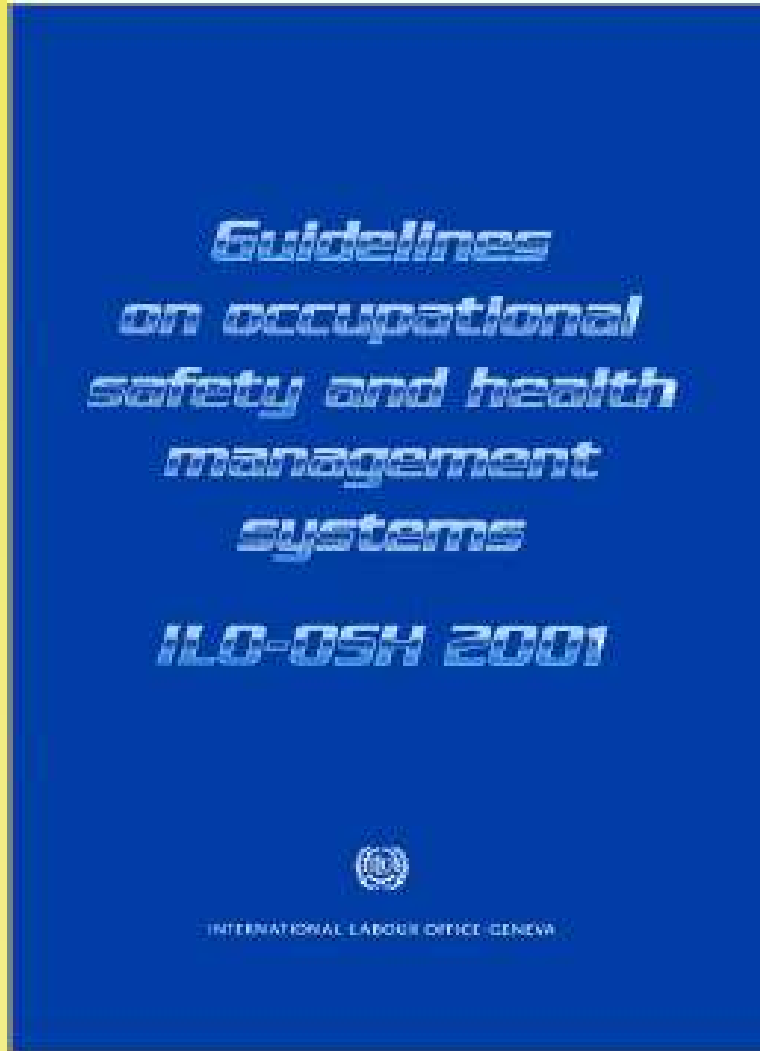
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| | | | | | | | | | | | | | | | | | |
|-----|-----|----|-----|-----|-----|-----|------|------|---------|----|-----|-------|-----|-----|-----|-----|-----|
| 164 | 73 | 27 | 84 | 100 | 70 | 84 | 10.2 | 5.2 | eo's | 2 | 5.6 | 122 | 3.5 | 0.8 | 0.7 | 3.0 | 4.4 |
| 161 | 68 | 26 | 86 | 114 | 68 | 96 | 7.0 | 5.3 | gb | 23 | 6.0 | 63 | 3.5 | 1.4 | 0.5 | 2 | 2.5 |
| 175 | 59 | 19 | 77 | 110 | 60 | 72 | 9.1 | 8.2 | gb | 1 | 5.6 | 104 | 3.5 | 1.3 | 0.4 | 2.0 | 2.7 |
| 174 | 73 | 24 | | 130 | 84 | 76 | 9.4 | 6.1 | gb | 8 | 5.6 | 116 | 3.5 | 1.2 | 0.5 | 2.0 | 2.9 |
| 158 | 89 | 36 | 121 | 123 | 81 | 81 | 8.9 | 5.1 | gb | 38 | 6.2 | 86 | 3.5 | 0.6 | 1.4 | 3.0 | 5.8 |
| 177 | 65 | 21 | | 108 | 64 | 56 | 9.8 | 5.5 | gb | 5 | 6.1 | 90 | 3.5 | 1.2 | 0.8 | 2 | 2.9 |
| 175 | 56 | 18 | | 121 | 68 | 56 | 9.2 | 6.4 | eo's | 11 | 6.0 | 113 | 3.5 | 0.9 | 0.5 | 2 | 3.9 |
| 162 | 71 | 27 | | 139 | 92 | 73 | 10.4 | 8.5 | gb | 6 | 5.9 | 88 | 3.5 | 1.6 | 1.2 | 2 | 2.2 |
| 174 | 71 | 23 | 79 | 150 | 90 | 100 | 10.1 | 5.0 | lymfo's | 7 | 5.7 | 97 | 3.5 | 1.2 | 0.7 | 2 | 2.9 |
| 161 | 75 | 29 | 101 | 120 | 70 | 80 | 6.7 | 6.9 | gb | 21 | 5.6 | 88 | 3.4 | 0.9 | 0.9 | 2 | 3.8 |
| 174 | 84 | 28 | 90 | 170 | 91 | 72 | 9.2 | 7.4 | mono's | 29 | 5.4 | 101 | 3.4 | 1.2 | 0.5 | 2 | 2.8 |
| 165 | 55 | 20 | 74 | 113 | 75 | 71 | 8.6 | 7.8 | eo's | 8 | 5.8 | 86 | 3.4 | 0.8 | 1.4 | 2.0 | 4.3 |
| 172 | 66 | 22 | | 120 | 84 | 67 | 10.0 | 6.2 | eo's | 5 | 5.9 | 98.0 | 3.4 | 1.2 | 0.6 | 2 | 2.8 |
| 182 | 76 | 23 | 84 | 131 | 69 | 76 | 10.0 | 8.7 | gb | 7 | 4.8 | 112 | 3.4 | 1.3 | 0.9 | 2.0 | 2.6 |
| 175 | 62 | 20 | 78 | 137 | 69 | 73 | 10.7 | 7 | gb | 1 | 5.8 | 105 | 3.4 | 1.2 | 0.4 | 2 | 2.8 |
| 171 | 72 | 25 | 86 | 122 | 82 | 76 | 8.8 | 5.5 | gb | 10 | 5.7 | 91 | 3.3 | 1.3 | 0.6 | 2 | 2.5 |
| 172 | 80 | 27 | 90 | 130 | 90 | 88 | 9.9 | 6.8 | gb | 10 | 4.6 | 128 | 3.3 | 1.0 | 0.7 | 2.0 | 3.3 |
| 178 | 102 | 32 | | 135 | 79 | 75 | 9.7 | 8.8 | gb | 8 | 7.1 | 95.0 | 3.3 | 0.9 | 0.8 | 2.0 | 3.7 |
| 173 | 76 | 25 | 88 | 140 | 100 | 104 | 9.4 | 10.2 | gb | 22 | 6.0 | 99 | 3.3 | 0.6 | 1.0 | 3 | 5.5 |
| 164 | 59 | 22 | 73 | 122 | 79 | 92 | 9.9 | 8.0 | eo's | 5 | 4.9 | 92 | 3.3 | 1.1 | 0.8 | 2 | 3.0 |
| 158 | 58 | 23 | 80 | 120 | 84 | 88 | 7.8 | 10.0 | gb | 20 | 5.5 | 72 | 3.2 | 1.1 | 0.7 | 2 | 2.9 |
| 159 | 54 | 21 | 80 | 124 | 80 | 84 | 8.6 | 7.9 | eo's | 11 | 5.2 | 91 | 3.2 | 1.3 | 1.3 | 2 | 2.5 |
| 172 | 70 | 24 | 76 | 133 | 77 | 57 | 9.0 | 4.0 | mono's | 7 | 5.2 | 97 | 3.2 | 0.9 | 0.3 | 2 | 3.6 |
| 157 | 68 | 28 | 91 | 135 | 81 | 88 | 8.0 | 5.9 | gb | 47 | 5.7 | 91 | 3.2 | 1.0 | 0.7 | 2 | 3.2 |
| 170 | 68 | 24 | | 90 | 59 | 71 | 9.5 | 5.6 | gb | 10 | 5.7 | 85 | 3.2 | 0.8 | 0.7 | 2 | 4.0 |
| 174 | 60 | 20 | 74 | 120 | 70 | 76 | 9.1 | 8.6 | gb | 11 | 5.8 | 86 | 3.1 | 0.7 | 0.7 | 2 | 4.4 |
| 162 | 49 | 19 | 69 | 110 | 78 | 98 | 10.5 | 5 | gb | 2 | 5.7 | 110 | 3.1 | 1.2 | 0.6 | 2 | 2.6 |
| 193 | 93 | 25 | | 116 | 68 | 65 | 9.6 | 6.0 | gb | 5 | 5.6 | 98 | 3.1 | 0.8 | 0.3 | 2 | 3.9 |
| 171 | 82 | 28 | 85 | 120 | 70 | 100 | 7.1 | 6.7 | gb | 27 | 5.6 | 57.0 | 3.1 | 1.2 | 0.4 | 2.0 | 2.6 |
| 174 | 58 | 19 | 74 | 110 | 66 | 64 | 10.2 | 7.9 | eo's | 2 | 6.2 | 110 | 3.1 | 1.0 | 1.1 | 2.0 | 3.1 |
| 164 | 74 | 28 | | 136 | 90 | 74 | 8.5 | 6.5 | gb | 17 | 6.3 | 76 | 3.1 | 0.9 | 0.8 | 2.0 | 3.4 |
| 153 | 63 | 27 | 87 | 111 | 59 | 72 | 8.3 | 5.3 | gb | 27 | 5.6 | 75 | 3.1 | 1.1 | 0.3 | 2.0 | 2.8 |
| 180 | 93 | 29 | | 125 | 67 | 76 | 9.3 | 5.2 | gb | 14 | 5.8 | 105.0 | 3.0 | 0.8 | 0.7 | 2.0 | 3.8 |
| 176 | 73 | 24 | 79 | 131 | 82 | 53 | 7.7 | 5.3 | 13 | gb | 4.7 | 112 | 2.8 | 1.2 | 0.7 | 1.0 | 2.3 |
| 177 | 65 | 21 | 75 | 115 | 58 | 71 | 8.7 | 6.0 | eo's | 4 | 5.4 | 101 | 2.8 | 0.9 | 0.5 | 2.0 | 3.1 |
| 180 | 73 | 23 | 79 | 100 | 80 | 88 | 9.4 | 4.2 | gb | 2 | 4.9 | 141 | 2.7 | 0.9 | 0.4 | 2 | 3.0 |
| 184 | 62 | 18 | 76 | 145 | 88 | 89 | 10.0 | 4.3 | gb | 7 | 6.2 | 100 | 2.5 | 0.9 | 0.3 | 2 | 2.8 |
| 158 | 56 | 22 | 81 | 110 | 70 | 80 | 9.6 | 4.8 | eo,s | 51 | 6.4 | 91 | 2.4 | 0.9 | 0.7 | 1.0 | 2.7 |
| 171 | 68 | 23 | 78 | 116 | 78 | 56 | 8.2 | 5.4 | gb | 7 | 5.4 | 92 | 2.4 | 1.1 | 0.3 | 1 | 2.2 |
| 163 | 44 | 17 | 64 | 140 | 70 | 120 | 8.6 | 6 | eo's | 14 | 8.9 | 79 | 1.8 | 0.9 | 0.5 | 1 | 2.0 |

Sleutelwoord = PMO

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*Dank
voor uw
aandacht*