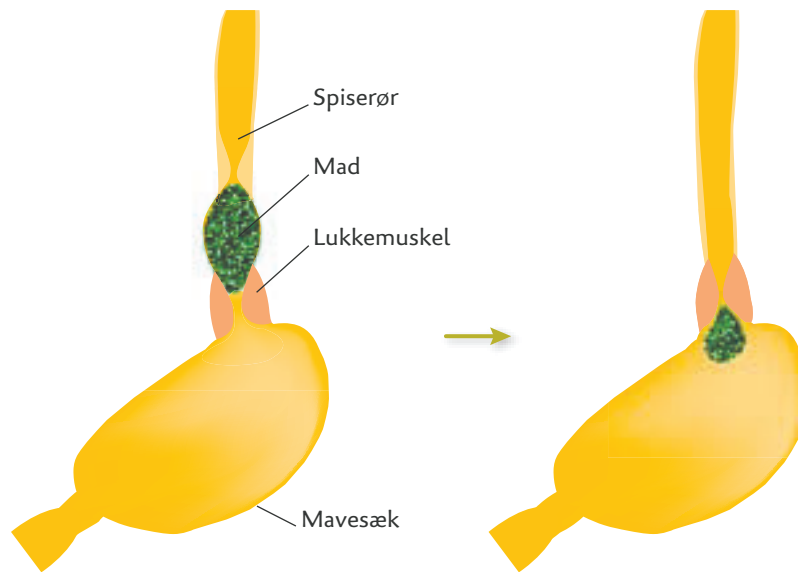
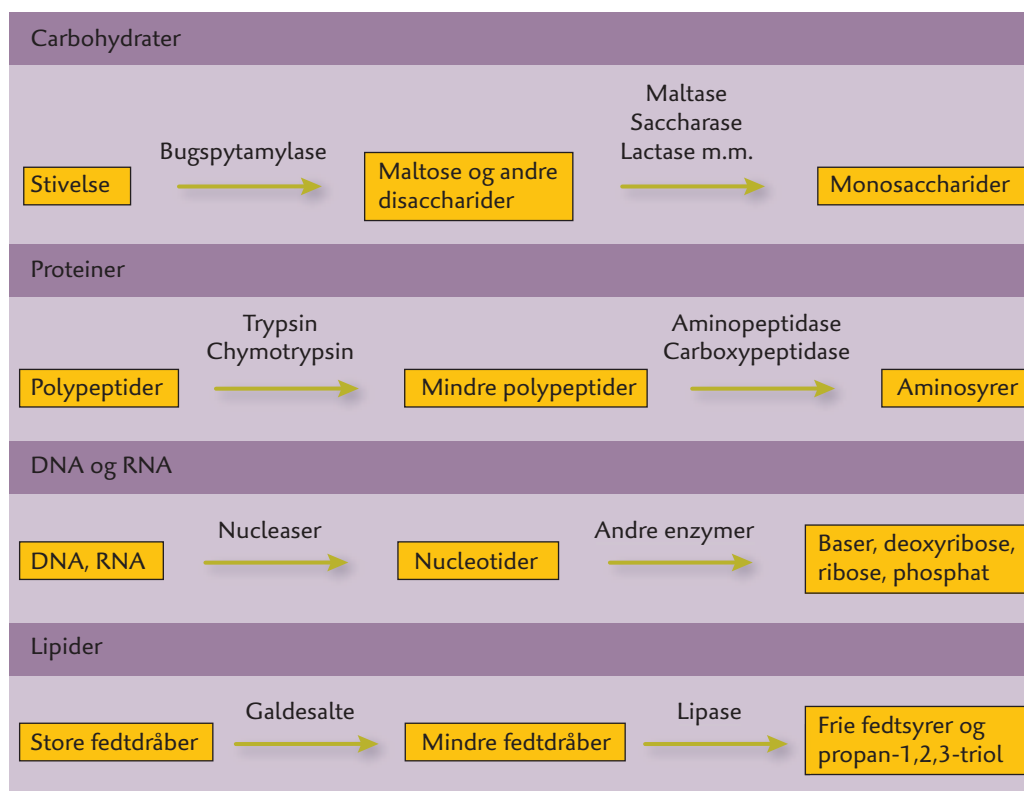


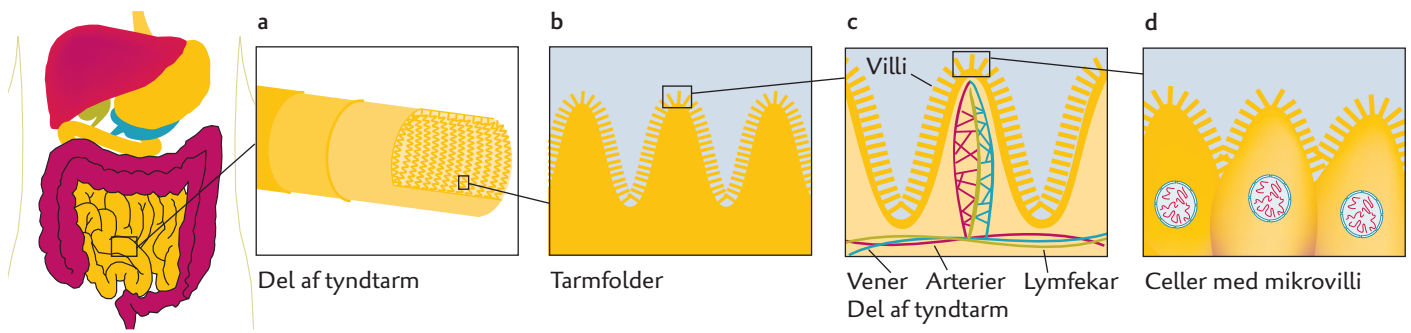
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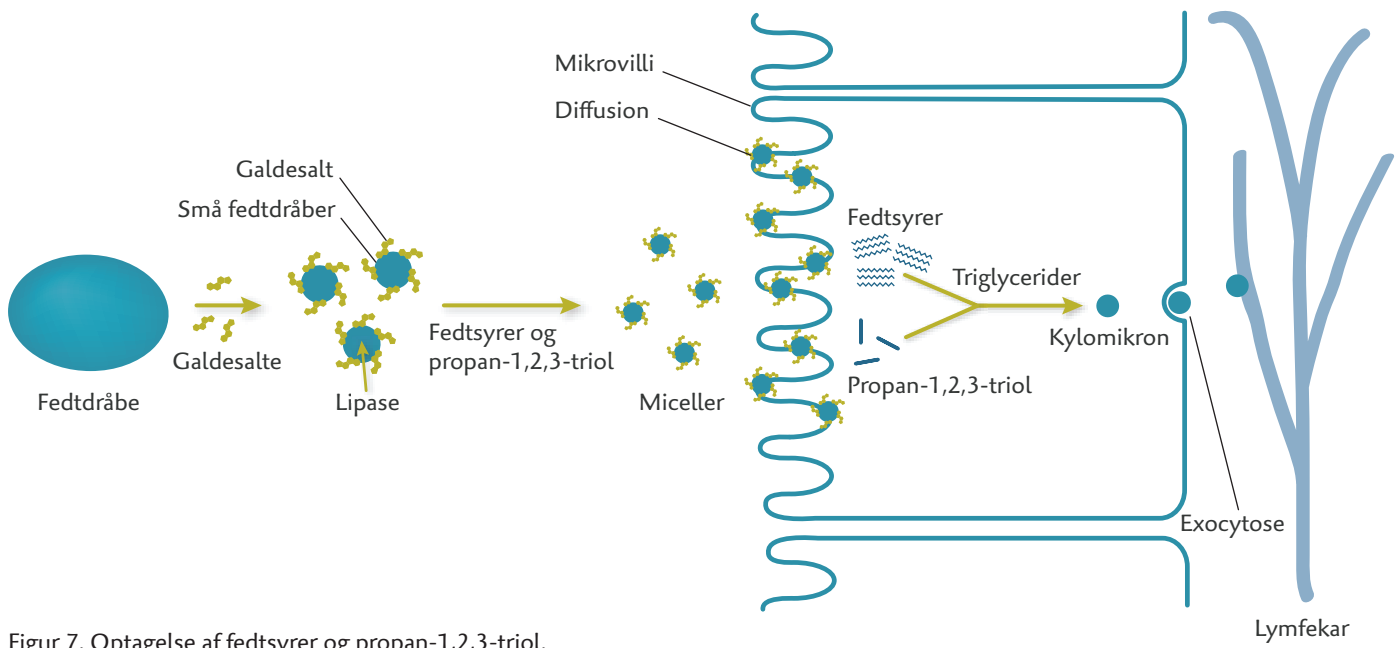
Figur 3. Føden transporteres fra mund til mavesæk.
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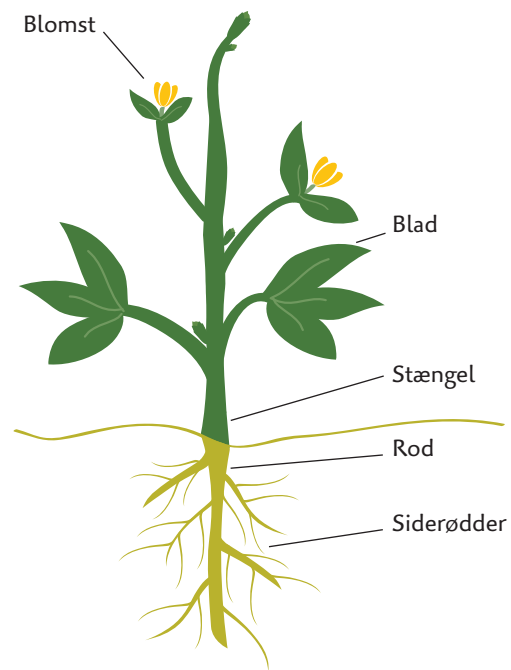
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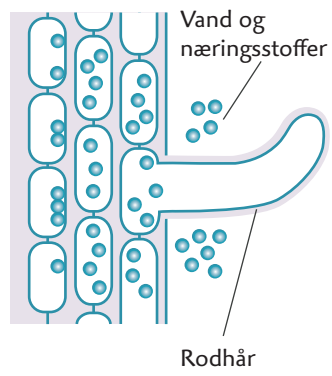
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Figur 7. Optagelse af fedtsyrer og propan-1,2,3-triol.
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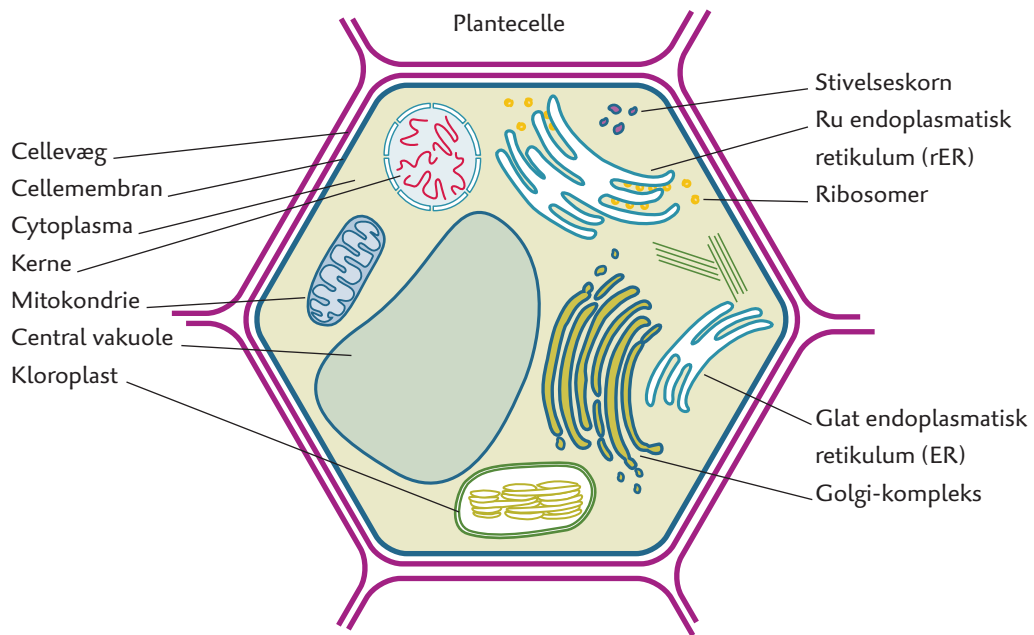
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Figur 9. Rodhår.

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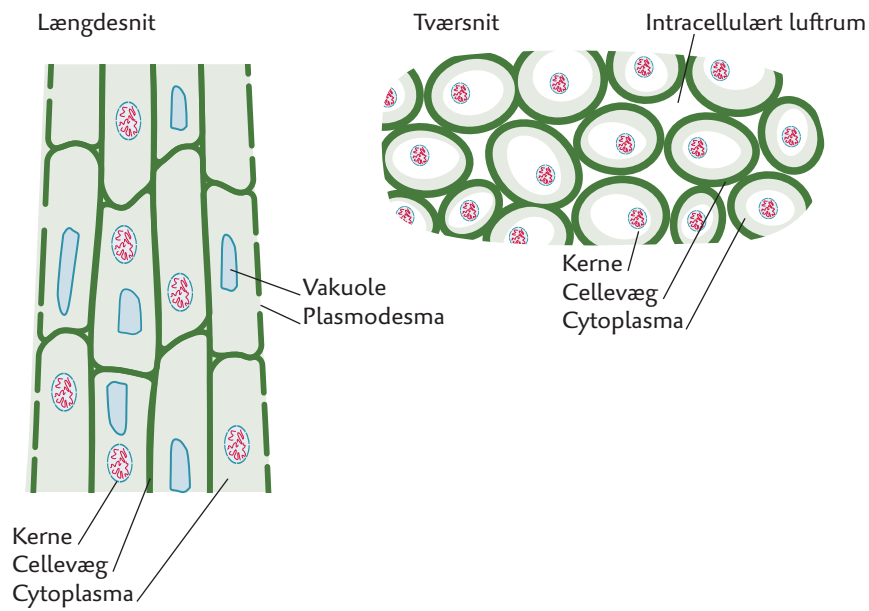
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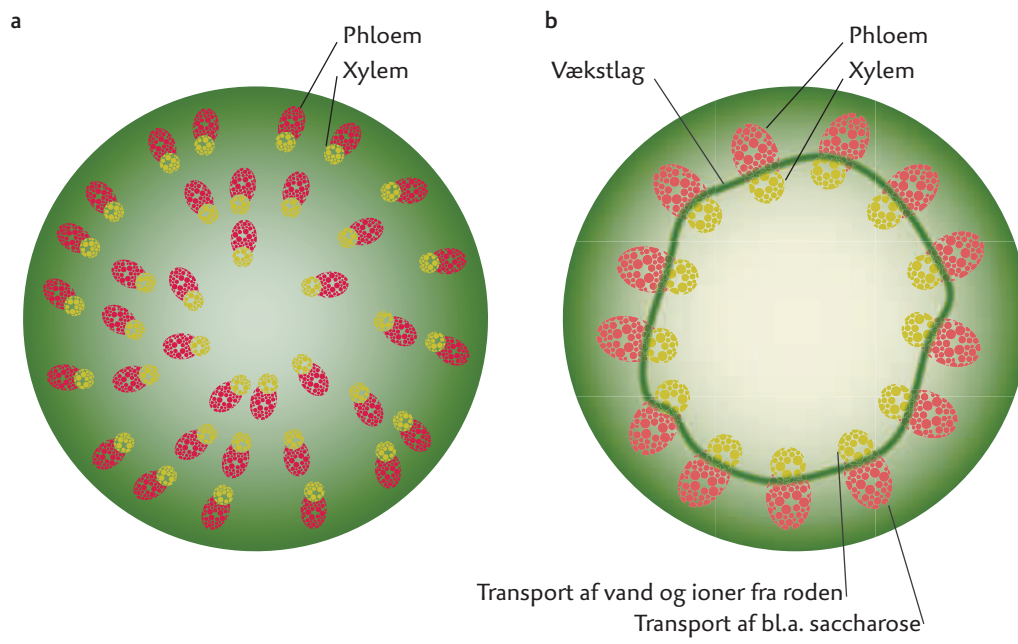
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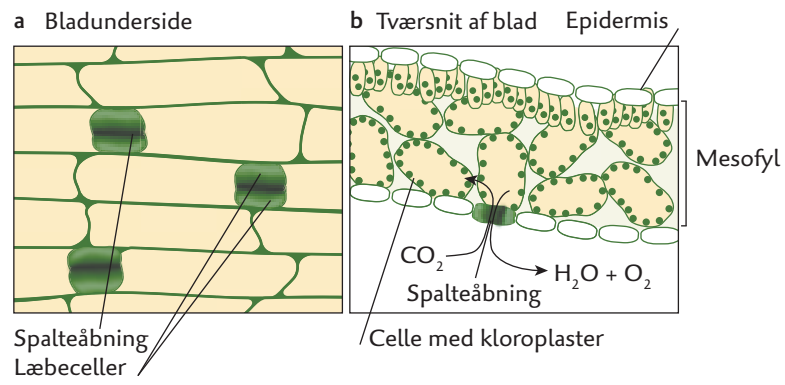
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Figur 11 a. Parenkymceller.
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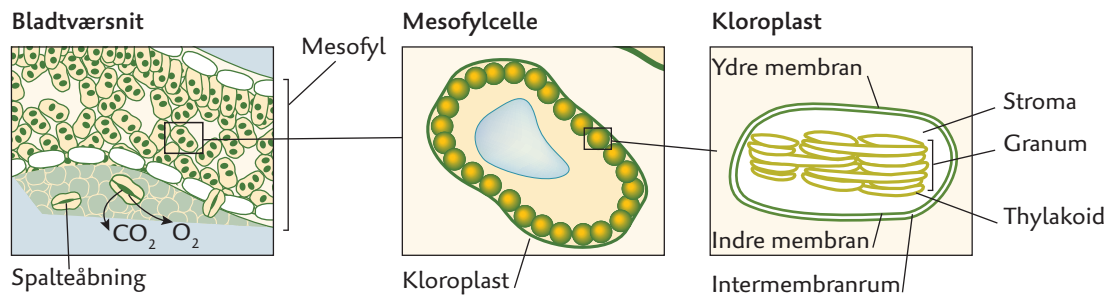
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Figur 13. Forstørrelse af et blad.

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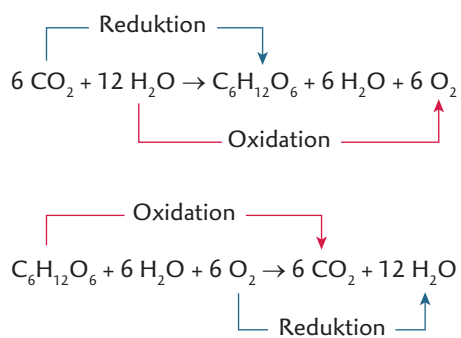
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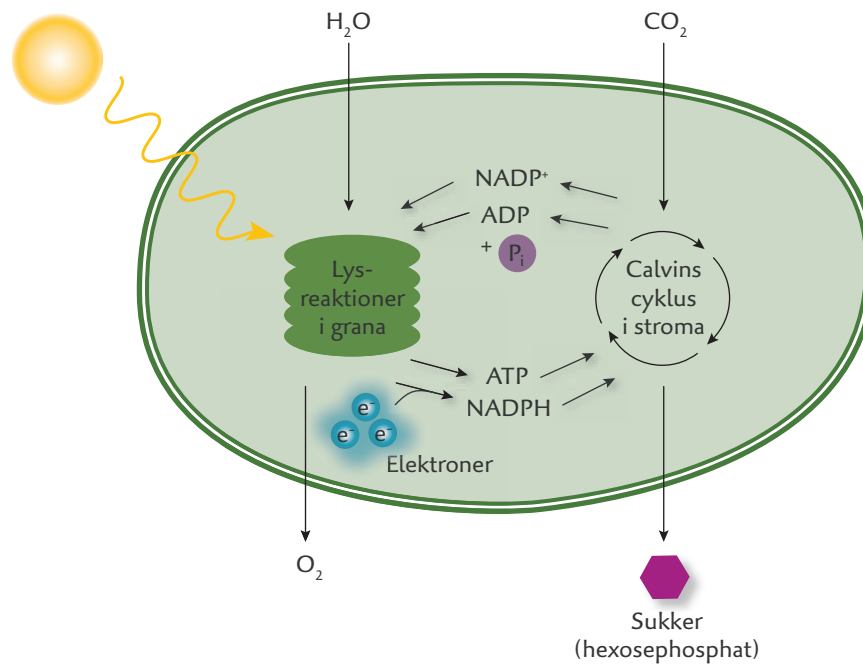
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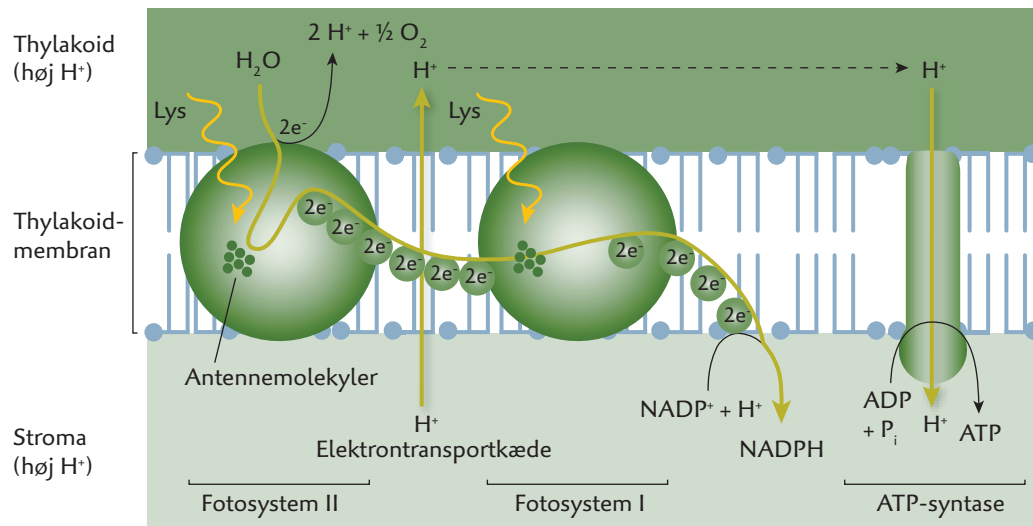
Figur 15. Oxidation og reduktion i fotosyntese og respiration.
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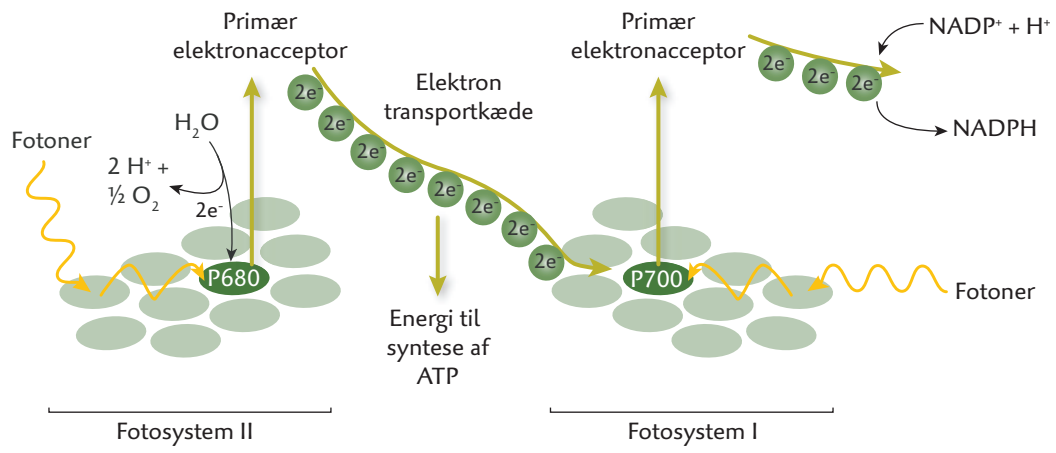
Figur 16. Fotosyntesen.
Bioteknologi 3 © 2010 · by Nucleus Forlag ·
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Lysprocesser	
Klorofyl a	[7-ethyl-17, 18-dihydro-8, 13, 17-trimethyl-22-methoxycarbonyl-21 (22H)-oxo-18-[2-(phytyloxycarbonyl)ethyl]-12-vinylcyclopenta[<i>a</i>]porphyrindiido]magnesium
Calvins cyklus	
Glycerat-3-phosphat	3-phosphat-2-hydroxypropanal
Glycerolaldehyd-3-phosphat	Phosphorsyre(2-hydroxy-3-oxopropyl)ester

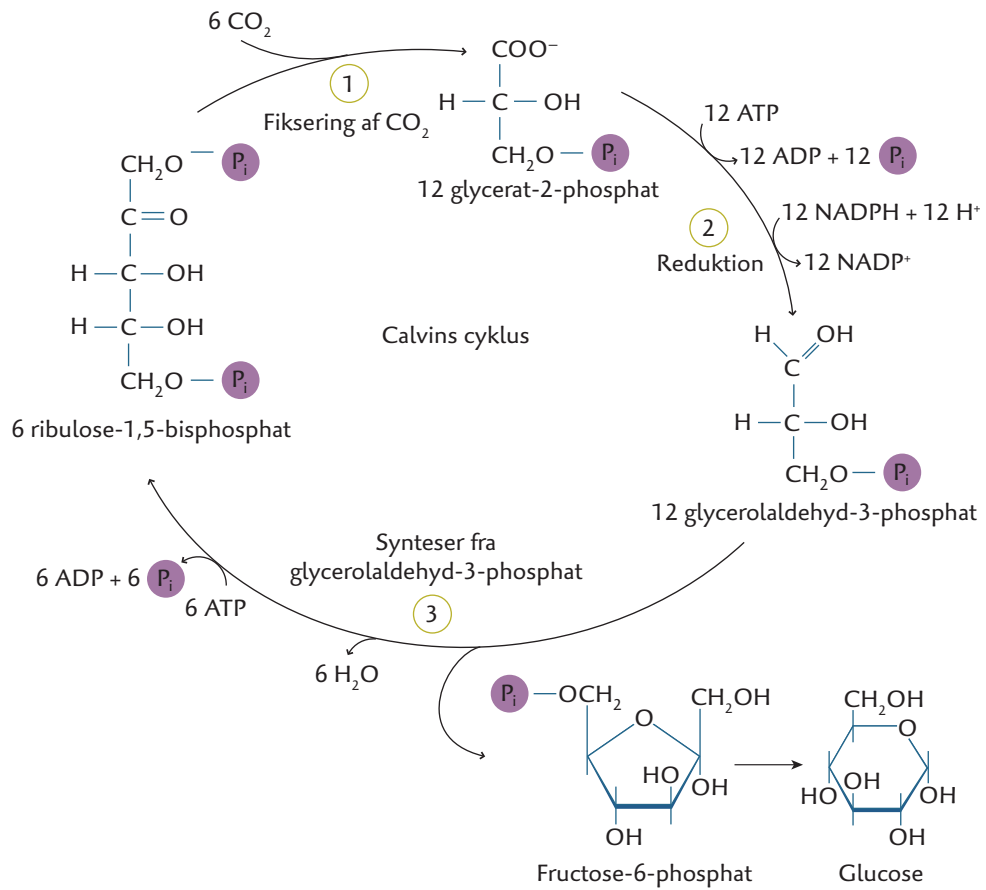
Figur 17. Trivialnavne og systematiske navne på fotosyntesens molekyler.
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Figur 18. Et fotosystem.
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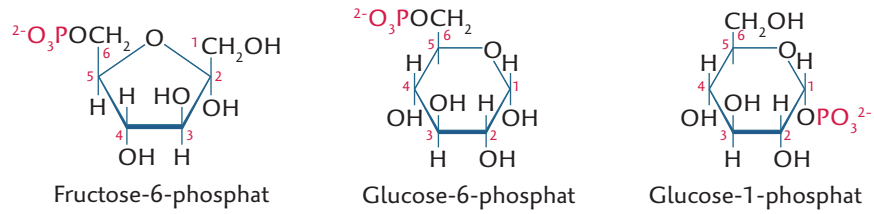
Figur 19. Lysreaktionen.
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Figur 20. Calvins cyklus.

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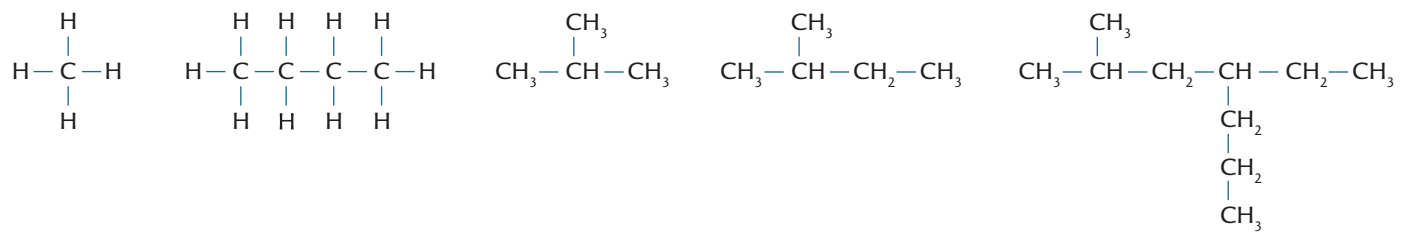
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Figur 21. De tre hexosefosfater.
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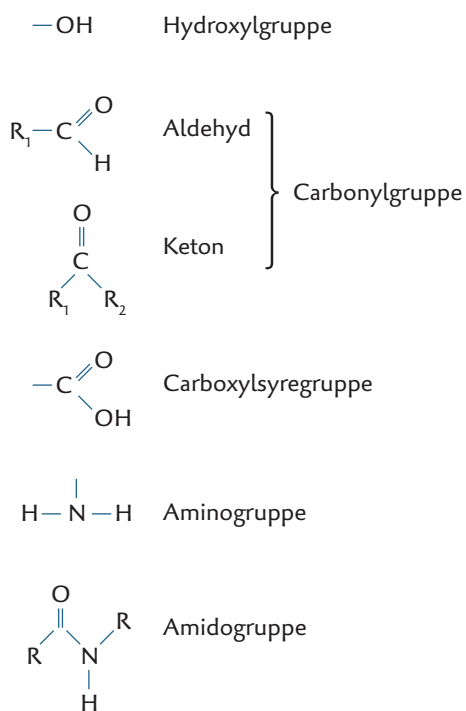
Figur 22. Carbonatomets bindingsforhold.
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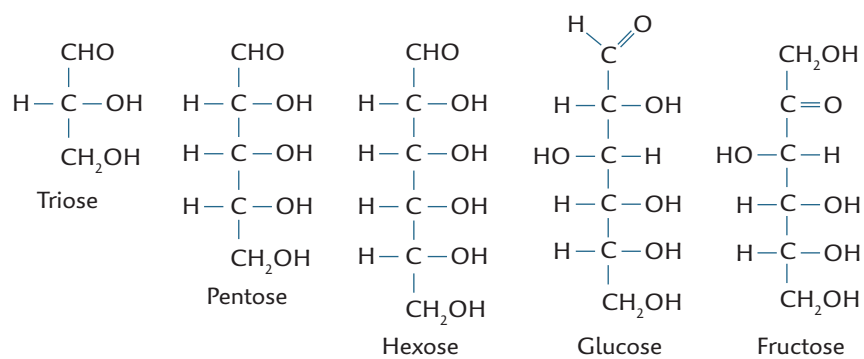
Figur 23. Variation i carbonskeletter.

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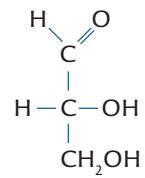
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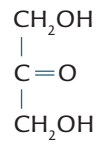
Figur 24. De seks vigtigste funktionelle grupper.
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Figur 25. Eksempler på monosaccharider
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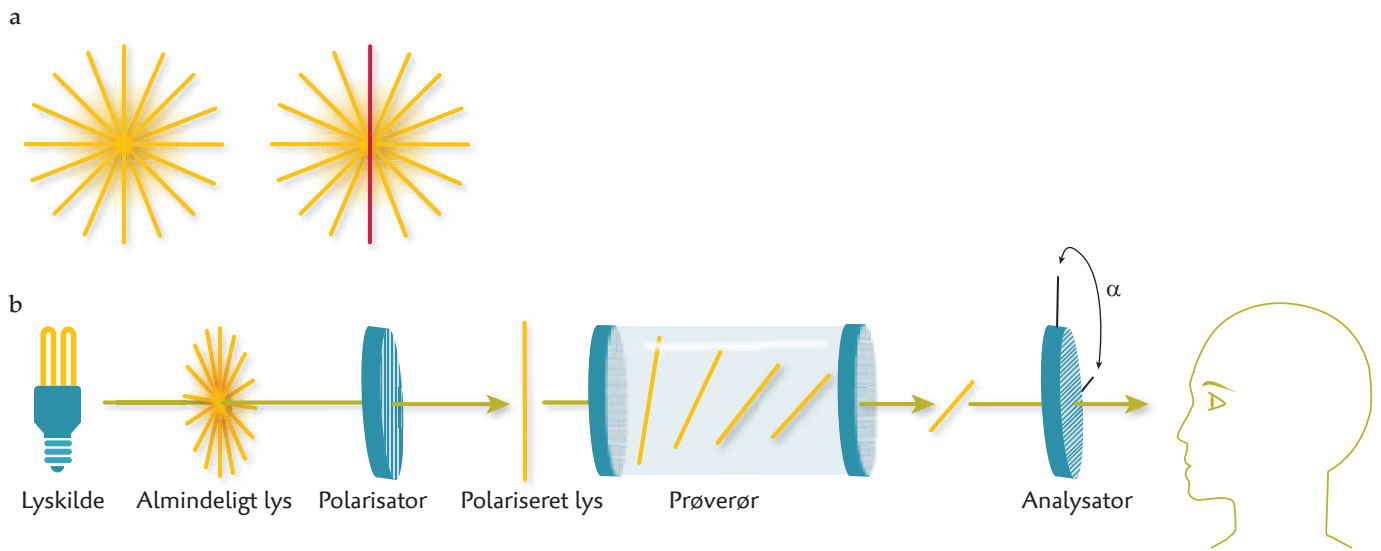


Glycerolaldehyd
(2,3-dihydroxypropanal)

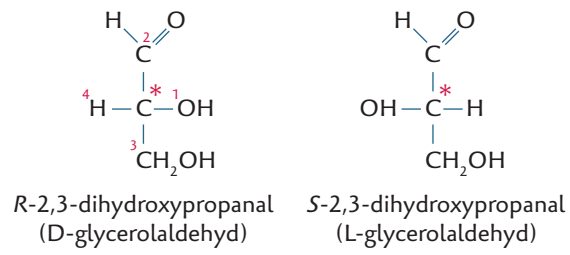


Dihydroxyacetone
(1,3-dihydroxypropan-2-on)

Figur 26. De to mindste monosaccharider.
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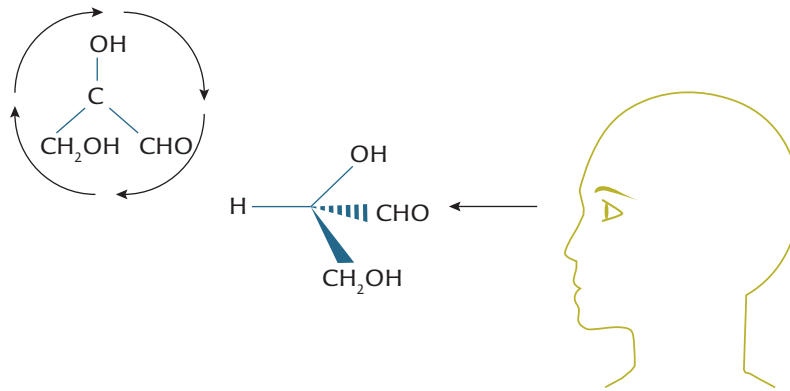
Figur 27. a. Planpolariseret lys og b. polarimeter.
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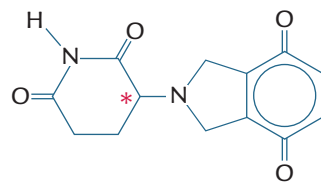
Figur 28. Spejlbilledisomeri.
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a $I > Br > Cl > S > F > O > N > C > H$ **b** $C(=O)OH > C=O > CHO > CH_2OH > CH_3$

Figur 29. Prioriteringsrækkefølge for nogle atomer.
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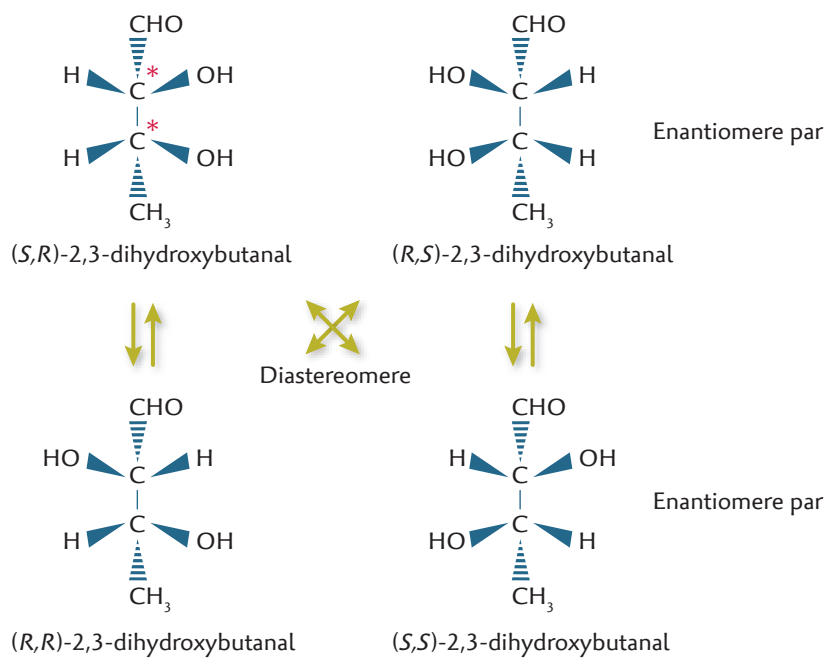


Figur 30. Princippet i navngivning af *R*- og *S*-isomere forbindelser.
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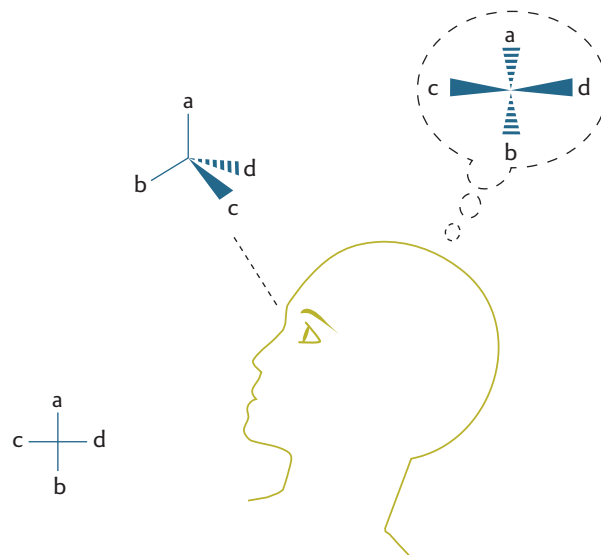


Thalidomid

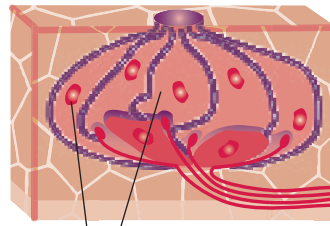
Figur 31. Thalidomid.
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Figur 32. Diastereomerer.
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Figur 33. Fischer-projektion.
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Smagsceller

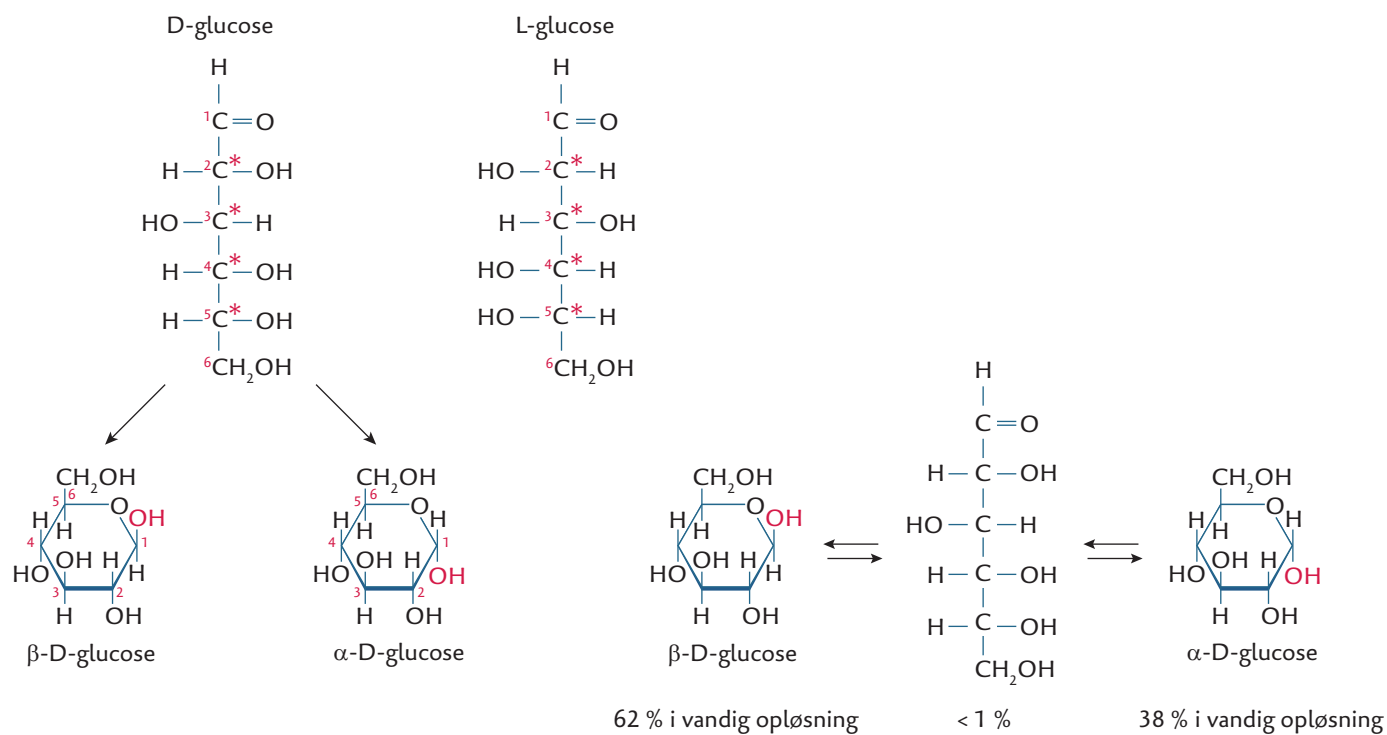
Figur 34. Smagsløg.
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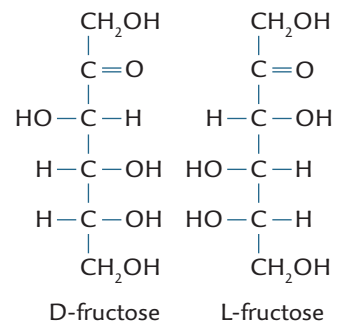
Forbindelse	Sødme relativ til saccharose
Naturlige sødestoffer	
Lactose	Mindre sødme
Maltose	Samme sødme
Glucose	En smule mere sødme
Fructose	4 x sødere
Kunstige sødestoffer	
Aspartam	200 x sødere
Saccharin	450 x sødere
Sucralose	600 x sødere
Neotam	8000 x sødere

Figur 35. Sødestoffers sødme relativt til saccharose.

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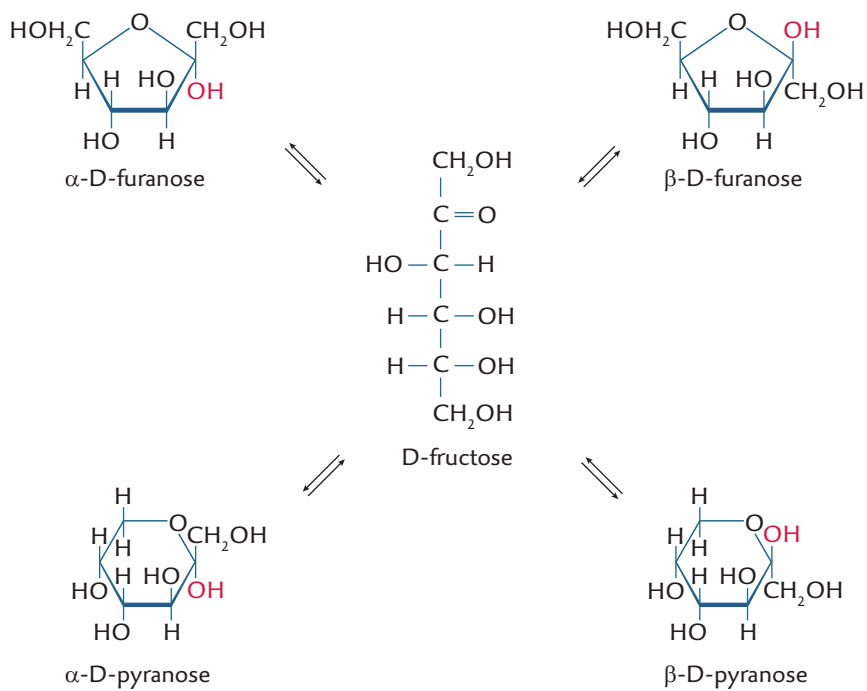




Figur 37. D- og L-fructose.

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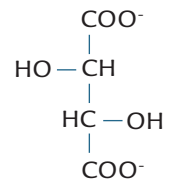
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Figur 38. Fructoses ketoform og de cykliske former.

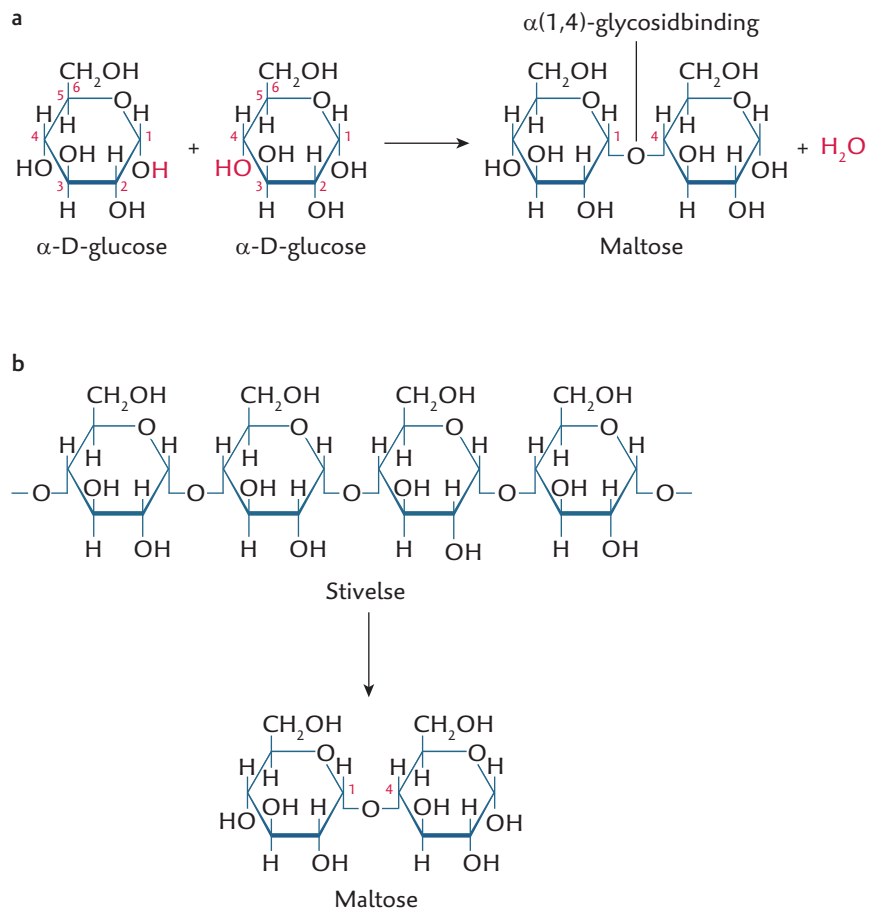
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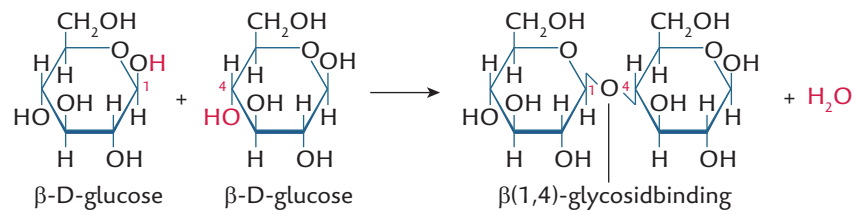


Tartrat-ion
(2,3-dihydroxybutandioat)

Figur 39. Tartration.
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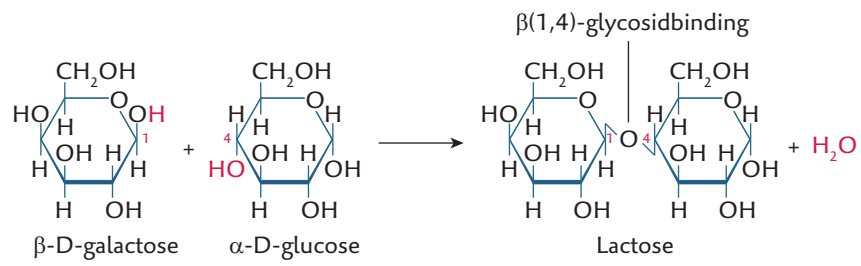
Figur 40. Dannelse af maltose.
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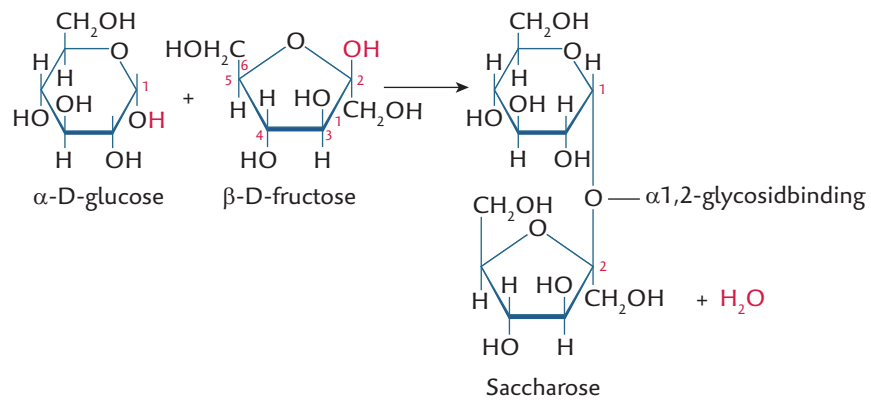
Figur 41. En β -1,4-glycosidbinding.

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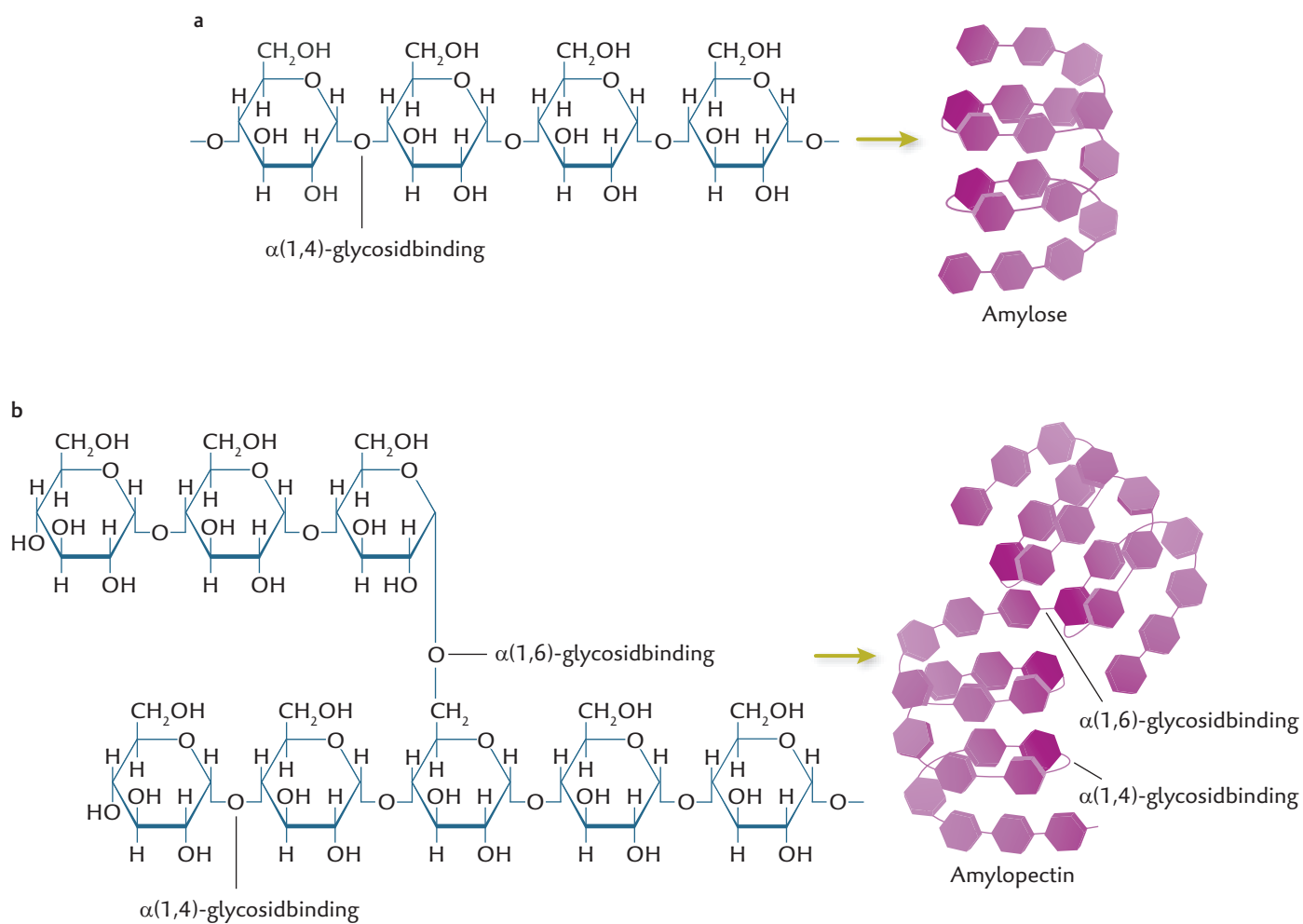
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Figur 42. Dannelse af lactose.
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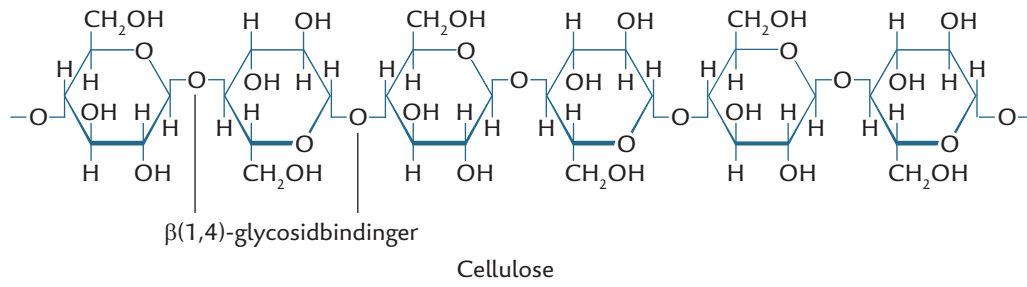
Figur 43. Dannelse af saccharose.
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Figur 44. Amylose og amylopectin.

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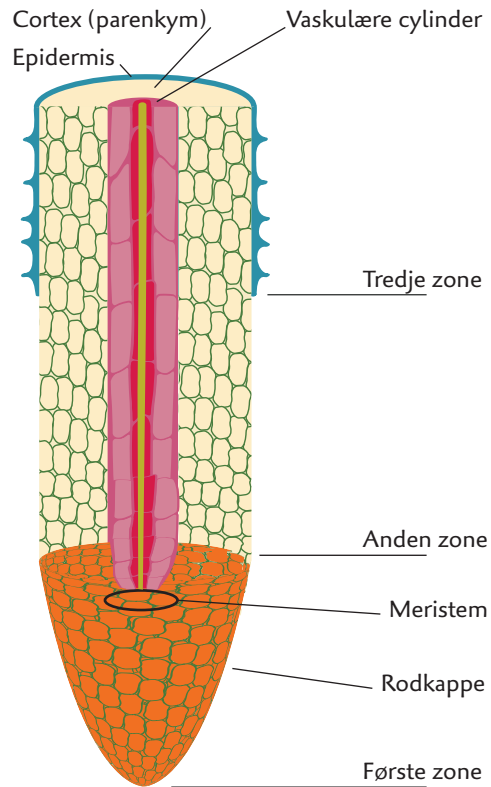
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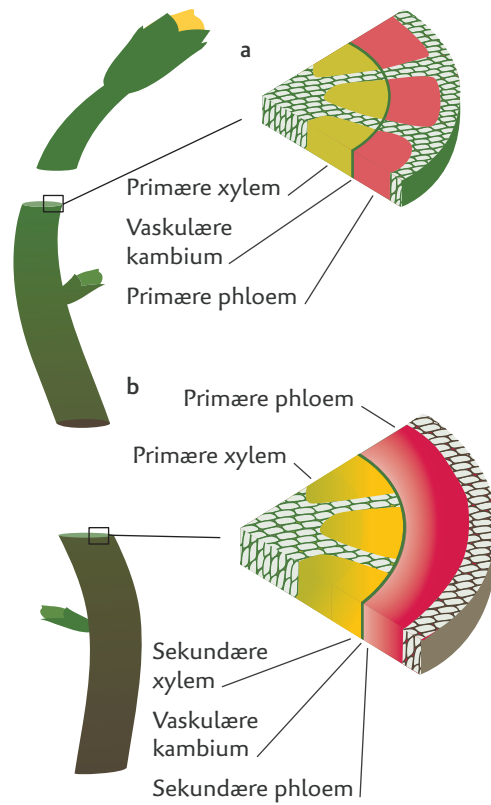
Figur 45. Cellulose.

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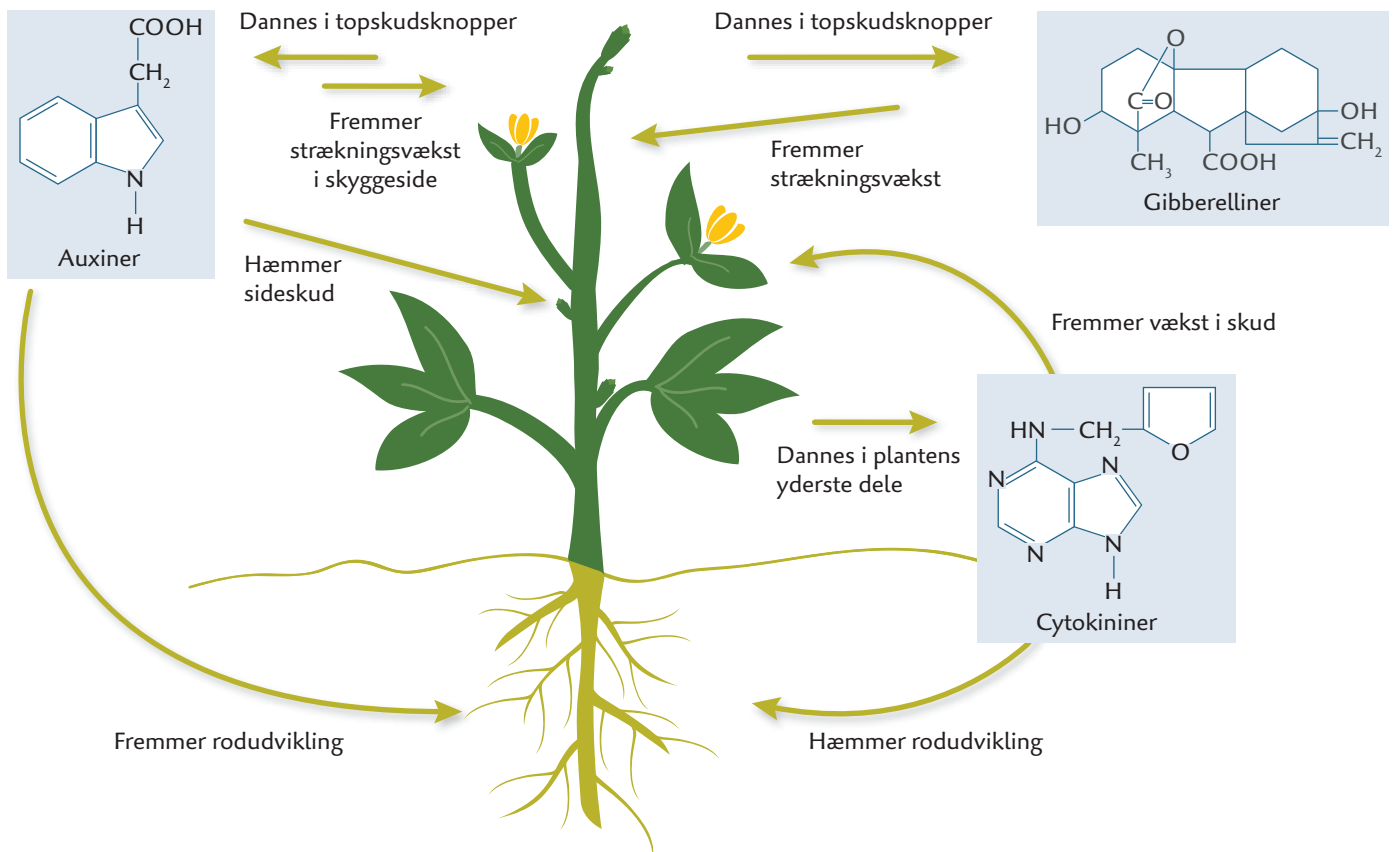
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Figur 47. Den primære vækst i en rodspids.
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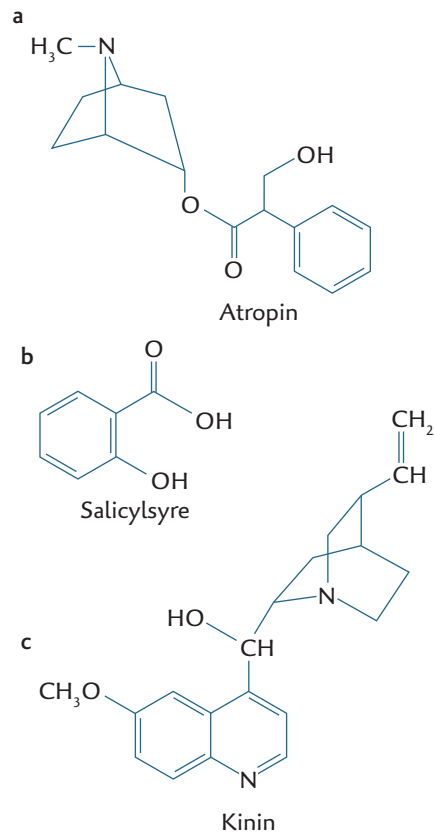
Figur 48. Sekundær vækst i rødder og stængel.
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Figur 49. Tre af plantens hormoner.

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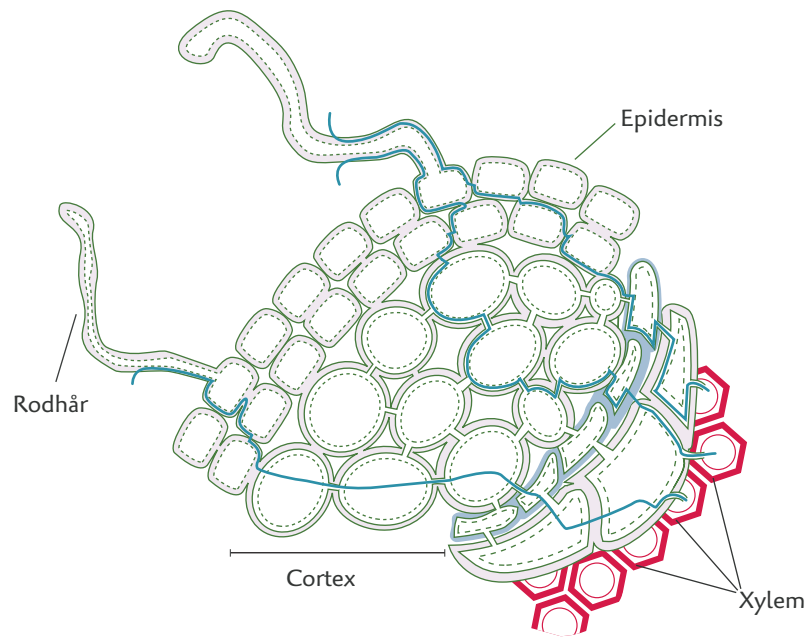
Figur 50. Kemiske forsvarsstoffer.
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Grundstof	Optages som	Eksempler på funktion i planten
Carbon (C)	CO ₂	Indgår i de organiske molekyler
Oxygen (O)	O ₂	
Hydrogen (H)	H ₂ O	
Makronæringsstoffer		
Nitrogen (N)	NH ₄ ⁺ , NO ₃ ⁻ , NH ₃	Indgår i aminosyrer, nucleinsyrer, ATP, klorofyl og nogle vitaminer
Kalium (K)	K ⁺	Indgår som cofaktor i enzymer og i åbning og lukning af spalteåbninger
Calcium (Ca)	Ca ²⁺	Indgår i cellevægge og i regulering af membranproteiner
Magnesium (Mg)	Mg ²⁺	Indgår i klorofyl og som cofator
Phosphor (P)	HPO ₄ ²⁻	Indgår i nucleinsyrer, ATP, NADPH, phospholipider og nogle vitaminer
Svovl (S)	SO ₄ ²⁻	Indgår i aminosyrerne methionin og cystein og i coenzym A

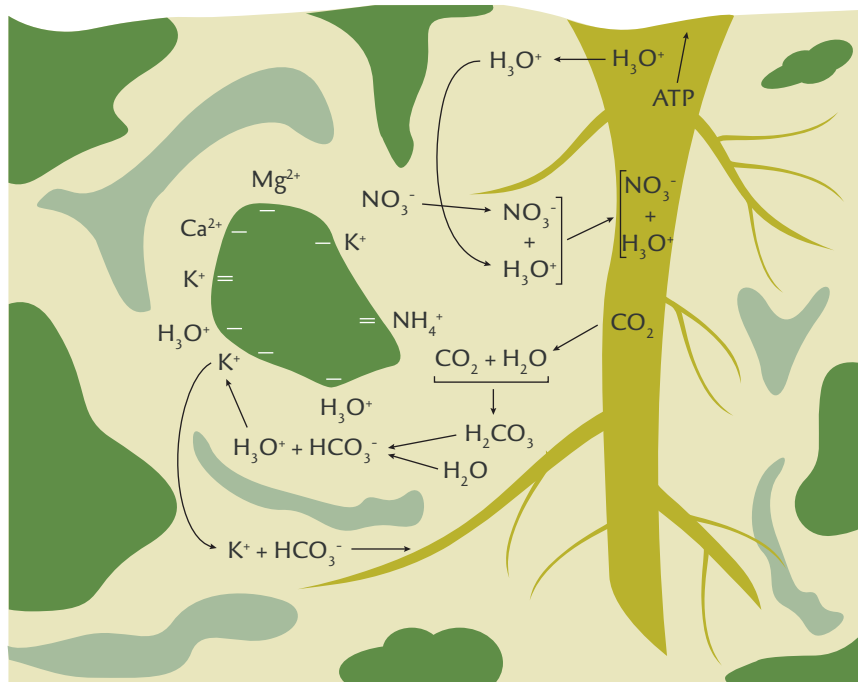
Figur 51. Plantens makronæringsstoffer.

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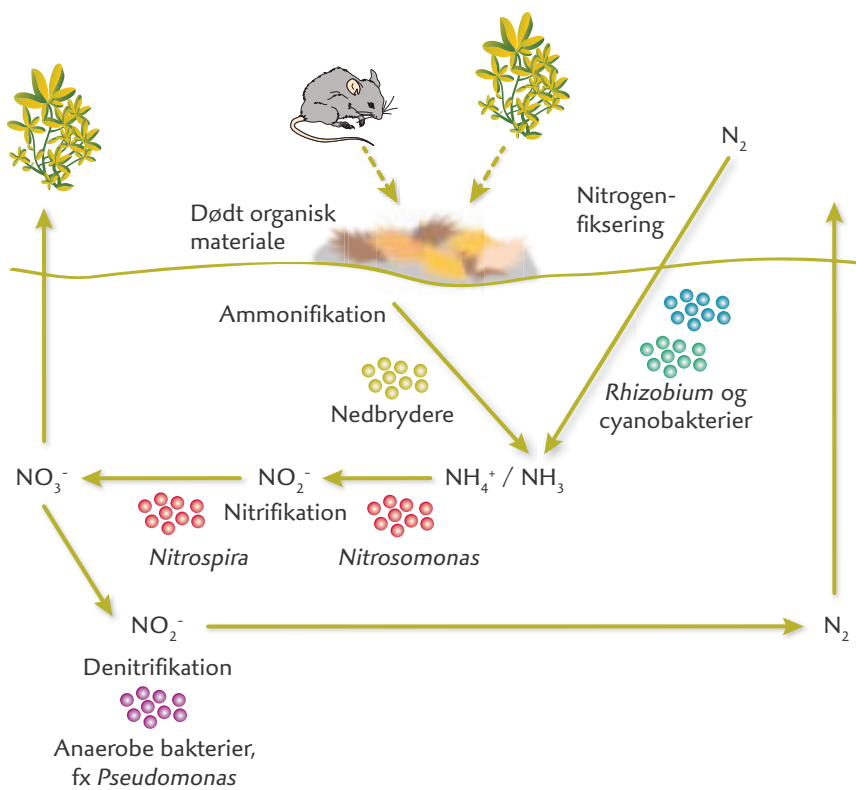
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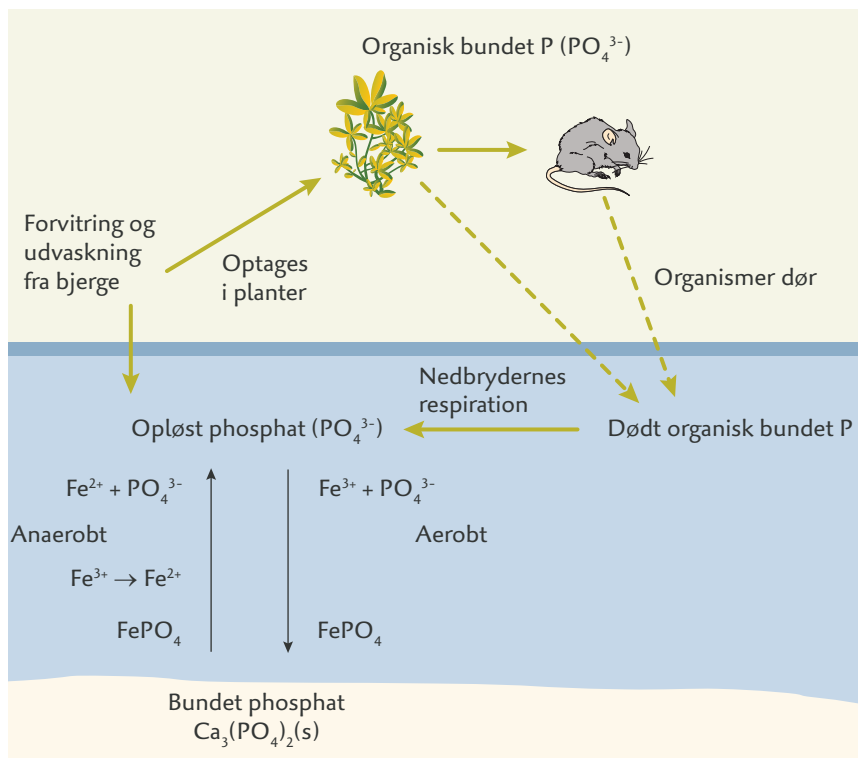
Figur 52. Optagelse af vand og næringssalte.
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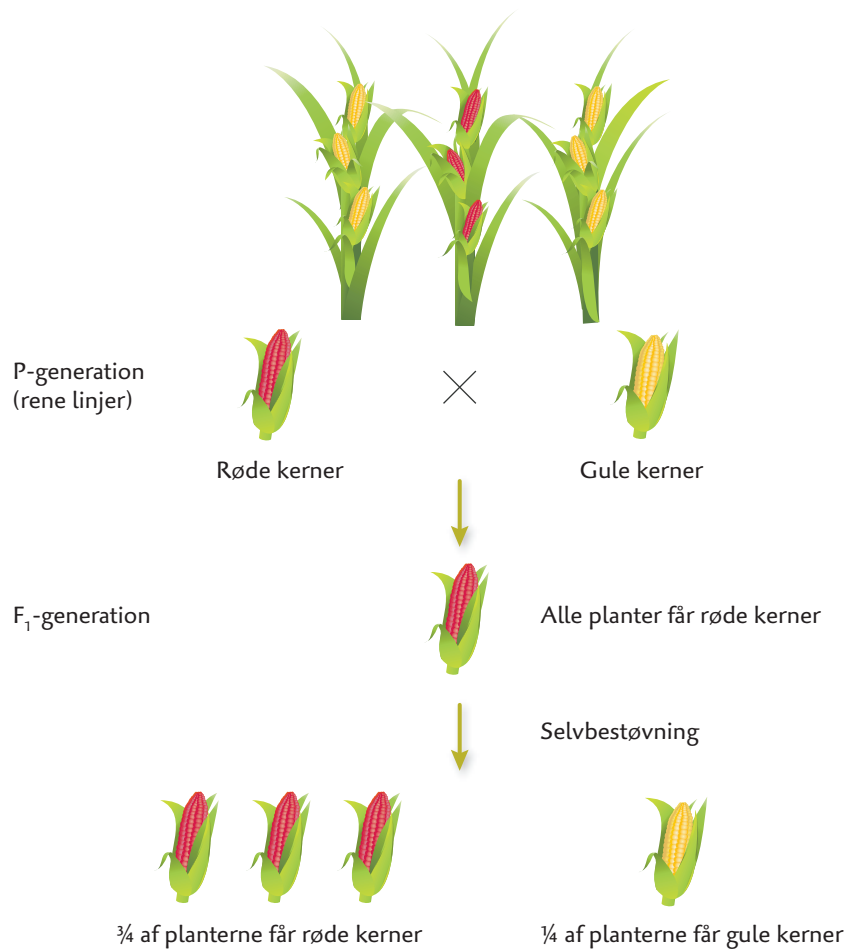
Figur 53. Forstørrelse af rodhår i jorden.
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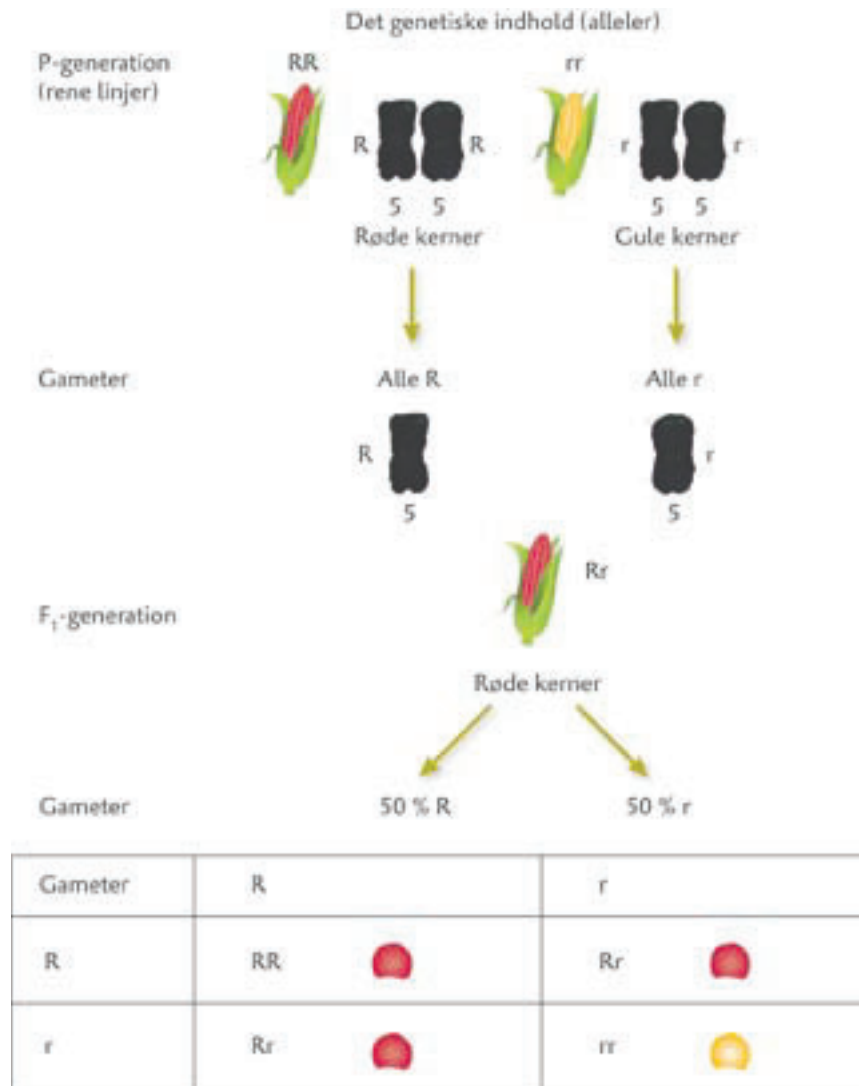
Figur 54. Nitrogenkredsløb.
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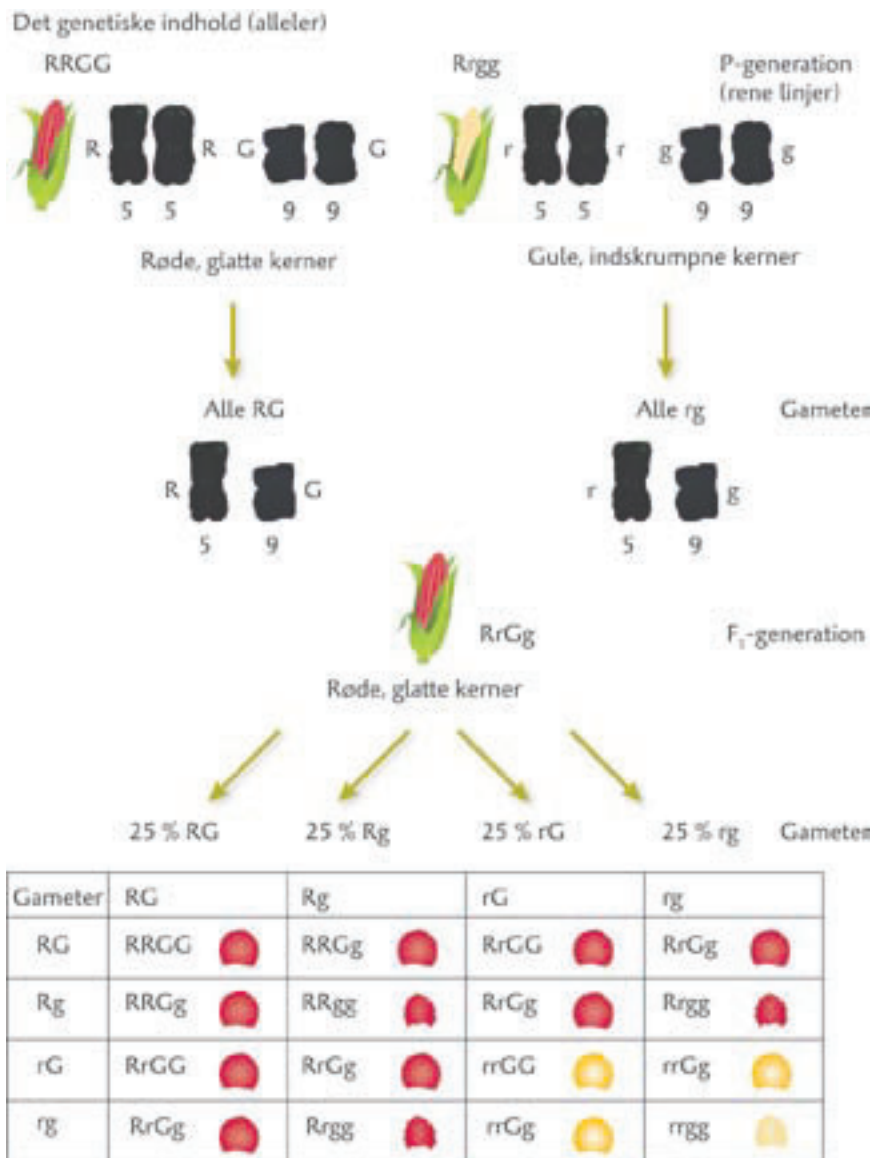
Figur 55. Phosphorkredsløb.
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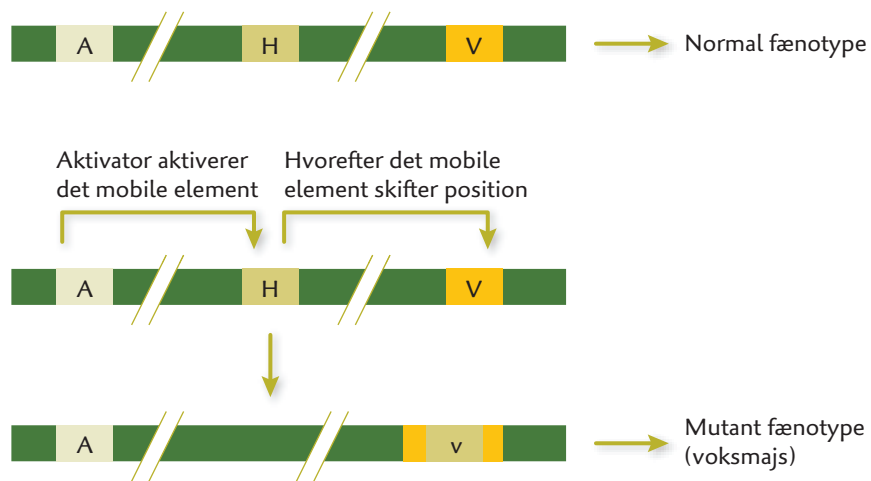
Figur 57. Krydsbestøvning.
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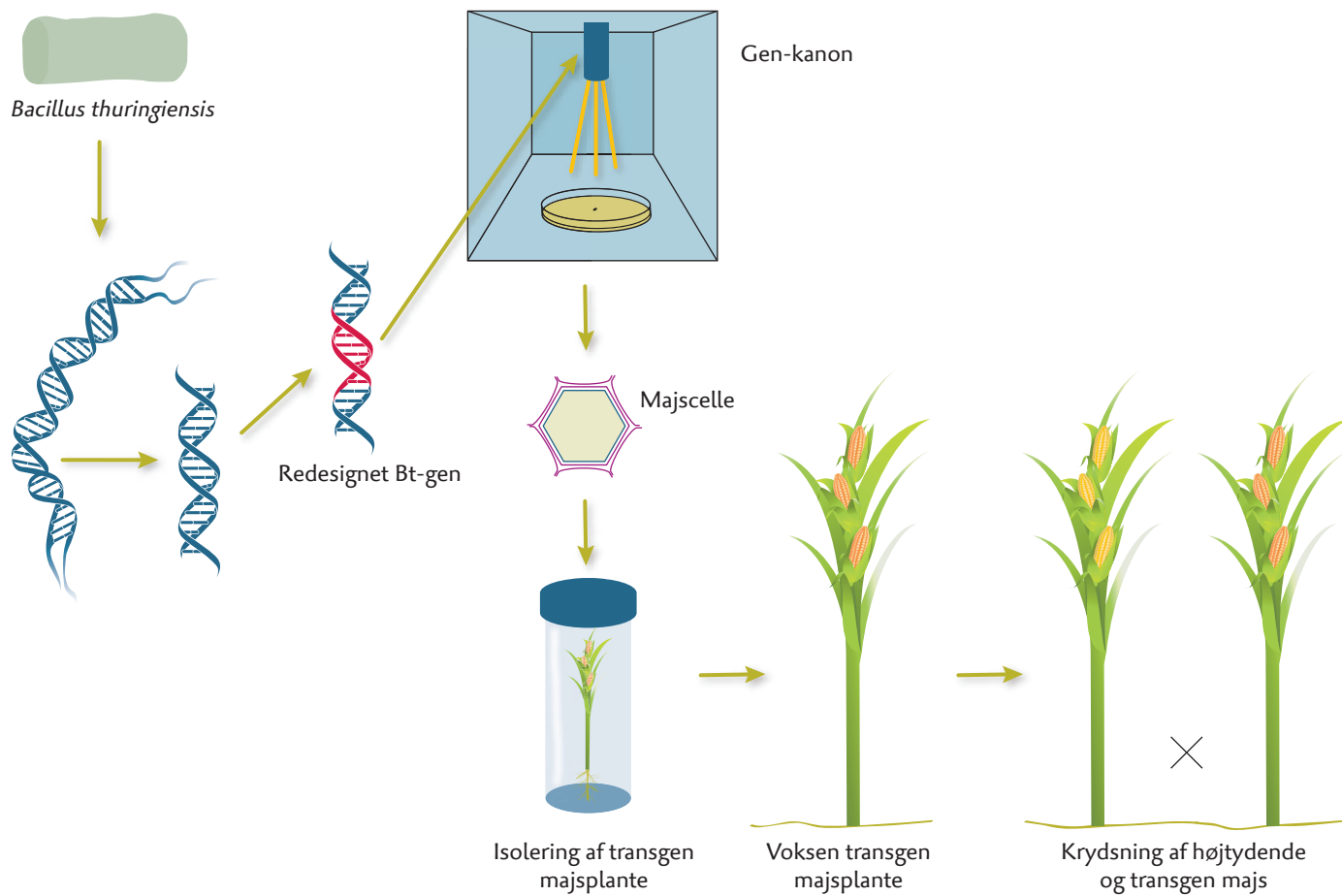
Figur 58. Krydsbestøvning.
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Figur 59. Krydsbestøvning.
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Figur 61. Hoppende gener.
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Figur 62. Princippet i gensplejsning.
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