



Fazy fenologiczne jabłek i ich wymogi w zakresie dostarczania substancji mineralnych

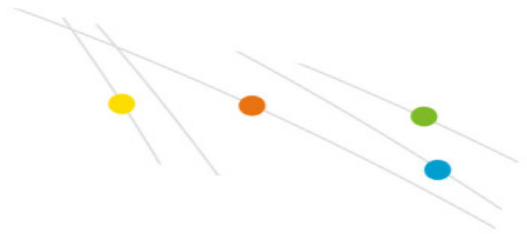
Dynamika poboru makroelementów i drugorzędnych składników pokarmowych na różnych etapach rozwoju

| Okres (dni po pełnym kwitnieniu) | Biomasa (mg suchej masy/dzień) | N | P ₂ O ₅ | K ₂ O | CaO | MgO |
|----------------------------------|--------------------------------|----------|-------------------------------|------------------|------|------|
| | | mg/dzień | | | | |
| 0 - 36 | 90 | 1 | 0,1 | 0,91 | 0,33 | 0,09 |
| 37 - 81 | 280 | 1 | 0,16 | 1,48 | 0,56 | 0,11 |
| 82 - 117 | 320 | 1 | 0,14 | 1,84 | 0,38 | 0,1 |
| 118 - 158 Zbiory | 260 | 1 | 0,19 | 1,85 | 0,3 | 0,08 |

SHAPE * MERGEFORMAT <v:rect id="Rechthoek_x0020_4" o:spid="_x0000_s1026" style='width:11.25pt;height:11.25pt;visibility:visible;mso-wrap-style:square; mso-left-percent:-10001;mso-top-percent:-10001;mso-position-horizontal:absolute; mso-position-horizontal-relative:char;mso-position-vertical:absolute; mso-position-vertical-relative:line;mso-left-percent:-10001;mso-top-percent:-10001; v-text-anchor:top' o:gfxdata="UESDBBQABgAIAAAAIQC75UiUBQEAAAB4CAAATAAAAW0NvbnRIbnRfVHlwZXNdLnhdYUwTewfKKEqcMCKEmHfgZgaE8wMW+SSwc27JvS/v23KTJgkoXFsu+P+c7OI5vDoMTe0zZBI/LVvgV4HY31Xy4/tS3EvRSbwBlzwWMsjZrlprq/W22PELHjb51r2RPFbqax7HCCXIaLnThvSAMTP1Kkl+gs6VLdVdad08ISeCho1ZLN+whZ2jsTzgcnsjwldluLxNDiyagkxOquB2Knae/OLUsyEkjenmdzbmG/YhIRnCWPNb8C898bRjGtQvEOiVxjYhtLOxs8AySiT4JuDystIVV4WPem6tK3ValLeDZxIOSsutijidNGNZ3/J08yC1dNv9v8AAAA//8DAFBLAwQUAAYACAAAACEArTA/8cEAAAAYAQAAcWAAAF9ZWxzLy5yZWxzhl/NCslwEITvgu8Q9m7TehCRpr2I4FX0AdZk2wbbjGTj39ubi6AgeJtI2G9m6vYxjeJGka13CqqiBEFOe2Ndr+B03C3WIDihMzh6RwqexNA281I9oBFTfuLBBhaZ4IjBkFLYSMI6oAm5



8IFcdjofJ0z5jL0MqC/Yk1yW5UrGTwY0X0yxNwri3lQgjs+Qk/+zfdZTVuvrxO59CNCmoj3vCwj
MfaUFOjRhrPHaN4Wv0VV5OYgm1p+LW1eAAAA//8DAFBLAwQUAAYACAAAACEAPaFvp+4CAAO
HwAAAGNsaXBib2FyZC9kcmF3aW5ncy9kcmF3aW5nMS54bWVlc2ZzAQvRfoPxC8K5JcepEQJ
FAXSJobD6Ap2ijCkSpjby367x1Scuw4RQ+JDhl5y+PMmxnq8npXS7ThxgqtCpxeJBhxxXQp1KrA
P77PohFG1IFVUqkVL/CeW3x99fHDJc1XhjaVYAgQIM1pgSvnmjyOLat4Te2FbrgC3VKbmjrYmIVc
GroF5FrGvSQZxDUVCl8doSbUUUbQ24g1QUrMnXo6p2IALkJLlp5luRsnej0xztflsmnnzYHzk7Nvm
wSBRFhiYU7QGInDcKToz2MZnXqsjwG5pam+vl0u0Cyh7/w4YfOcQA2FKeqNhHyMGqm7dnIHd/
VdP/+kEw7aGwOAnENj4MtXmdGTlk9shZ5SrNnxB5TvJgbps7KIFFSo8rqlb8xjacOYgXnA8iY/S2
4rS0XtzSAvy1ClGilxiQuth⁺
1SXwSddOhy5501XPKdO8MdZ95rpGfFgA0EGcLq5s66N6WAS+NAz
IwVgW6oXAsBsJVAlcPU6X6/Qvr+zJJuOpiMSkd5gGpFkMoluZmMSDWbpsD/5NBmPJ+kff25K8kq
JVf+mMMopeRVn9aCGW310l0wXcfQLILxwzjBMKXJcZisLqL0cD4ka1aLsTRoQ2WBZ+HpmD8xi1
EfoVcjlLKe2R5LaXRbPBaBiRGelH2TAZRUma3WaDhGRkMnuZ0p1Q/P0poW2Bs36vH6p0EvRZbl
XudG81o4bpAUdYFH0Y09404VWUoraNctusTKnz4Ryqg3ldCw9J24+928zA2bnery70nbAFfaF6
obngSoCr1d3Dayk15MGkaDCqtPI1LvN2UHTQYLSFi7XA9ueaGo6R/KJgXrKUEIBzYUP6wx5szKlm
caqhigFUgR1G7XLsYAcu68aIVQUnpYFOpW9guJaia/w2dp+FtG7u9pIHdkKGXJUP1NBHyE3CfBeY
22h81/ENfkDKkYS15fMGbosOt2Up0AaGZ3dzcO3+Jf4HcLq/+gsAAP//AwBQSwMEFAAGAAgAAA
AJJ9h+AdBwAASSAAABoAAABjbGlwYm9hcmQvdGhlbWUvdGhlbWUxLnhtbOxZS28bNxC+F+h/
sWS9YiNyYmly3MQvREqKHCmJ2mXMXS5Iyo5uRXLqpuCBtOihAXrroSgaoAEa9NIfY8BBm/6IDrk
UqLiB1wgKGwBxu7sN8PhzOzM7PDO3WcR9Y4xF4TFbb96q+J7OB6xMYmDtv9osP3Zbd8TEsVjF
2/4MC//uxqef3EHrI0qSIUN8PAhxhD0QFit11PZDKZP1IRUxAjISt1iCY3g2YTxCem55sDLm6AQW
iOjKaqXSXIkQif0NkCiVoB6Ff7EUijCivK/EYC9GEax+MJmQEdbY8VFVlCrmDcn3jhFt+yBzzE4G
+Jn0PYqEhAdtv6L//JWNOytoPWOicgmvwbet/zK⁺



jGF8tKrX5MGwWLRb9Sbm4V8DaByEddr9Zq9

ZiFPA9BoBDtNdbFltla79QxrgNJLh+yt1latauEN+bUFnTcb6mfhNSiVX1/Ab293wYoWXoNSfGMB

3+isdbZs+RqU4psL+FZlC6vesuRrUEhJfLSArjSatW6+2wlyYXTHCV9r1Ldbq5nwEgXRUESXWmL

Yrks1iL0IPFtACggRZLEnpwlelJGEJNdRMmQE2+XBCEEXoJiJoBcWa1sV2rwX/3q+kp7FK1jZHAr

vUATsUBS+nhixEki2/59kOobkLO3b0+fvzl9/vvpixenz3/N1taiLL4dFAcm³

/ufvvn1Zfe37/9

+P7lt+nS83hh4t/98tW7P/78kHjYcWmKs+9ev3vz+uz7r//6+aVD+iZHQxM+IBEW3j4+8R6yCDK

0B8P+eU4BiEijsdmHAgUI7WKQ35PhhZ6f4YocuA62LbjYw6pxgW8N31qKdwP+VQSh8QHfYWB

HcadVnig1jLMPJjGgXtxPjVxDxE6dq3dRbHI5d40gRxLXCK7IbbUPKQolijAMZaesaOMHbs7gkh

ll33ylgzwSbSe0K8DijOkwzl0lqmkmHROCXmUtB8Ldlm73HXodR16638LGNhHcDUYfyA0wtM9

U4kil8gBiqhp8F0kQ5eS/RkfbiekODpAFPm9cZYCBfPAYf9Gk5/AGnG7fy9OotsJfkyCVzFzFm

IrfYUTdEUeLC9kkcmtjPxRGEKPIOmXTB95j9hqh78AOKI7r7McGWu8/PBo8gw5oqlQGinky5w5f3

MLPitz+jE4RdqWaTR1aK3eTEGR2daWCF9i7GFJ2gMcbeo88dGnRYYtm8VPp+CFIIB7sC6z6yY1X

x1hgTzc3i3lylwgrZPs4YEv02ZvNJZ4ZiiPEI0neB6+bNu9BqYtcAXBAR0cmcJ9Avwfx4jTKgQAZ

RnAvIXoYlquAqXvhjtcZt/x3kXcM3sunlhoXeC+BB1+aBxK7yfNB2wwQtRYoA2aAoMtwpVtgsdx

sqjiqtmmTr6j/dKWboDuyGp6lhKf2wHN9T6N/673gQ7j7ldXjpftevodt2ArWV2y01mWTHbm+ptl

uPmupsv4mHz8Tc0WmsaHGOrIYsa66Wluehr/f9/TLHufbzqZZf3GTSfjQ4dx08lkw5Xr6WTK5gX6

GjXwSAC9euwTLZ36TailfTmjeFfowY+A75nxNhAVn55u4mlKmlRwqcocLGDhAo40j8eZ/ILIsB+i

BKZDVV8JCUQmOhBewgQMjTTZKVvh6TTaY+N02FmtqsFmWlkFkiW90ijoMKiSKbrZKgd4hXitba

rbkCivcyShiL2UrUHEq0cqlykh7rgtEcSuidXYsWaw4tbivxuasWtADVCq/AB7cHn+Itv1EHFmCC

eRw052Plp9TVuXe1M6/T08uMaUUANNh5BJSeXIO6Lt2e2l0aahfwtKWEW62EtoyusETIXwGZ9G

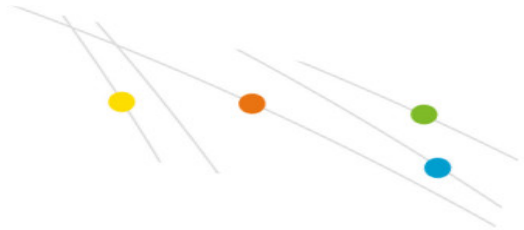
qBdR47K+XitdaqmnTKHXg9Aq1Wjd/pAWV/U18M3nBhqbmYLG3knbb9YaEDIjILT9CQyN4TJKIH

+uZCNIDjlpHk6Qt/lcyScCG3kAhTg+ukk2aDiEjMPUqitq+2X7iBxjqHaN2qq5AQPrl1iCtfGzK



gdNtj+PjBI+k6XaDoiyd3kKGT3OF86ImvzpYcblpuLsfjk⁺
8IZ3yhwhCrNGqKgOOiYCzg2pqzTGB
w7AikZXxN1eYsrRrnkbpGErpiCYhyiqKmcxTuE7lhTr6rrCBcZftGQxqmCQrhMNAFVjTqFY1LapG
qsPSqns+k7KckTTLmmlIFVU13VnMWiEvA3O2vFqRN7TKTQw5zazwaeqeT7lrea6b6xOKKgEGL+
qLoXKAiGauVilmpK48U0rHj2RrVrR77Bc1S7SJEwsn4zfztnt6JGOJcD4pUqP/DNRy2QJnlfqS3t
OtjeQ4k3DKptHw6XYTj4DK7geNoH2qqirSoaXMGZM5SL9KC47WcXOQWep5QCU8sptRxTzyn1r
KY2c0swpTd/TJ6pwiq8OU30vPzCFGpYdsGa9hX36v/EvAAAA//8DAFBLAwQUAAYACAAAACEAnG
QbsAAAAkAQAAKqAAAGNsaXBib2FyZC9kcmF3aW5ncy9fcmVscy9kcmF3aW5nMS54bWwucmY
zQrCMBCE74LvEPZu0noQkSa9iNcr1AclyTYtNj8kUezbG+hFQfCyMLPsN7NN+7IzeWJMk3ccaloB
Qae8npzhcOsvuyOQIKXTcvYOOSyYoBXbTXPFWeZylMYpJFloLnEYcw4nxpla0cpEfUBXNoOPVuY
o2FBqrs0yPZVdWDxkwHii0k6zSF2ugbSL6Ek/2f7YZgUnr16WHT5RwTLpRcWolwGMwdKV2edNS
gYmGff0m³
gAAAP//AwBQSwECLQAUAAYACAAAACEAu+VIIAUBAAAeAgAAEwAAAAAAAAAAAAAAAAAAAA
AAAAW0NvbnRlbnRfVHlwZXNdLnhtbFBLAQItABQABgAIAAAAIQctMD/xwQAAADIBAAALAAAAA
AAAAAAAAADYBAABfcmVscy8ucmVsc1BLAQItABQABgAIAAAAIQA9oW+n7glAAKAGAAAFAAAA
AAAAAAAAACACAABjbGlwYm9hcmQvZHIhd2luZ3MvZHIhd2luZzEueG1sUESBAi0AFAAGAAgAA
AJJ9h+AdBwAASSAAABoAAAAAAAAAAAAAAAAASwUAAGNsaXBib2FyZC90aGVtZS90aGVtZTEu
UESBAi0AFAAGAAgAAAAhAJxmRkG7AAAAJAEAACoAAAAAAAAAAAAAAAAAAoAwAAAGNsaXBib2Fy
cmF3aW5ncy9fcmVscy9kcmF3aW5nMS54bWwucmVsc1BLBQYAAAAABQAFAGcBAACjDQAAAA
" filled="f" stroked="f">

Ponieważ owoce jabłoni są stosunkowo ubogie w składniki mineralne i zawierają głównie węglowodany, wzajemne relacje między azotem, fosforem, wapniem i magnezem wzrastają w niewielkim stopniu. Jedynie potas, który przenosi cukry do



rozwijających się owoców, wykazuje znaczący wzrost.

JABŁKO

Nabrzmiwanie
pąków



Pęknięcie
pąków



Pąk kwiatowy



Kwitnienie



Zawiązywanie
się owoców



Rozwój
owoców



Dojrzewanie
zbiornicze



Zbiory

