

**1 C B 8 ; > = ( ! B 0 5 = : ; 5 = ) - Abutilon**

gradinar, ? 5 B J : 11 N ; 8 2008 - 15:54:14

! 5 < 5 9 A B 2 >: ! ; 5 7 > 2 8 - Malvaceae

@ > 8 7 E > 4: . 6 = 0 < 5 @ 8 : 0

**1 C B 8 ; > =**      JB 5 2 5 G => 7 5 ; 5 => 4 J @ 2 > A 5 4 @ 8 : ; 5 => 2 8 4 = 8  
 7 5 ; 5 = 8 8 ; 8 ? J A B @ 8 ; 8 A B 0 . & 2 5 B > 2 5 B 5 < C A 0 A D > @ < 0 = 0  
 : 0 < 1 0 = : 8 2 1 O ; >, 6 J ; B >, @ > 7 > 2 >, > @ 0 = 6 5 2 > 8 ; 8 G 5 @ 2 5 =>.  
 < 0 8 2 8 4 > 2 5 A 4 2 C F 2 5 B = 8 : 0 < 1 0 = : 8. 0 A B 5 = 8 5 B > F J D B 8 > B  
 0 ? @ 8 ; 4 > A 5 ? B 5 < 2 @ 8, 0 ? @ 8 A B 0 9 = 0 B 5 < ? 5 @ 0 B C @ 0 1 0 > - 1 5 > C  
 F J D B 5 6 J B ? @ > 4 J ; 6 0 2 0 8 7 8 < 0 B 0. 0 4 0 F J D B 8 > 1 8 ; = >,  
 A 0 : A 8 O B 0 B @ O 1 2 0 4 0 < C 5 < 0 ; : > B O A = 0.  
**1 C B 8 ; > =**      JB 5 1 J @ 7 > @ 0 A B O I > @ 0 A B 5 = 8 5. " @ O 1 2 0 @ 5 4 > 2 = > 4 0  
 A 5 ? > 4 @ O 7 2 0, 7 0 4 0 F J D B 8 > 1 8 ; = >, 4 0 A 5 @ 0 7 : ; > = O 2 0 8 4 0  
 ? @ 8 4 > 1 8 5 E C 1 0 2 0 D > @ < 0.  
 > 1 @ 5 5 ; O B > B > 4 0 A 5 8 7 = 0 A O = 0 2 J =.  
 1 C B 8 ; > = J B 5 8 7 2 5 A B 5 = : 0 B > A B 0 5 = : ; 5 = 7 0 @ 0 4 8 ? @ 8 ; 8 : 0 B 0  
 2 J 2 D > @ < 0 B 0 = 0 ; 8 A B 0 B 0. " > 9 5 4 @ 5 1 5 = E @ 0 A B 8 ; 8 4 @ J 2 G 5 A  
 : @ 5 E : 8 A B J 1 ; 0 8 < J E 5 A B 8 ; 8 A B 0, : > 8 B > ? @ 8 @ 0 7 ; 8 G = 8 B 5  
 A > @ B > 2 5 A 0 7 5 ; 5 = 8 8 ; 8 8 7 ? J A B @ 5 = 8 = 0 8 2 8 F 8 8 ; 8 ? 5 B = 0.  
 A > 1 5 = > > G 0 @ > 2 0 B 5 ; 5 = 5, > B @ C ? 0 = A F 2 5 B > 2 5 6 J ; B 8,  
 > @ 0 = 6 5 2 8, G 5 @ 2 5 = 8, 1 5 ; 8, @ > 7 > 2 8.

O : > 8 2 8 4 > 2 5 :

Abutilon megapotamicum variegatum A ; 8 A B 0 A 1 5 ; 8 8 6 J ; B 8 ? 5 B = 0, 8 F 2 5 B > 2 5  
 4 2 C F 2 5 B = 8 : 0 < 1 0 = : 8 2 6 J ; B > 8 ? C @ ? C @ = >

Abutilon hybridum 8 7 @ 0 A B 2 0 : 0 B > : 8 G 5 A B > 4 @ J 2 G 5 A 2 8 A > G 8 = 0 > : > ; >  
 1, 5 <. < 0 8 2 0 @ 8 5 B 5 B A ? > G B 8 1 5 ; 8 ; 8 A B 0.

Abutilon striatum thompsonii 4 > A B 8 3 0 2 8 A > G 8 = 0 > : > ; > 1, 5 <. 8 A B 0 B 0 < C A 0 A  
 6 J ; B 8 ? 5 B = 0 8, 7 0 @ 0 7 ; 8 : 0 > B B 5 7 8 = 0 4 @ C 3 8 B 5 0 1 C B 8 ; > = 8, A 0  
 3 ; 0 4 : 8, 1 5 7 2 ; 0 A 8 = : 8.

J A B @ > ; 8 A B = 8 B 5 A > @ B > 2 5 F J D B O B ? > - A : J 4 = >. & J D B 5 6 J B  
 A ? 8 @ 0 ? @ 5 7 7 8 < 0 B 0, : 0 : B > 8 ? @ 8 B 2 J @ 4 5 2 J 7 @ 0 A B = 8 @ 0 A B 5 = 8 O.  
 > @ > = 0 B 0 A 5 D > @ < 8 @ 0 G @ 5 7 @ 5 4 > 2 = > ? > 4 @ O 7 2 0 = 5, 0 = 0  
 : @ 5 E : > B > A B J 1 ; > 5 4 > 1 @ 5 4 0 A 5 > A 8 3 C @ 8 > ? > @ 0.

**B 3 ; 5 6 4 0 = 5 8 3 @ 8 6 8:**      @ 5 7 7 8 < 0 B 0 < C A 5 > A 8 3 C @ O 2 0 ? 5 @ 8 > 4 = 0  
 ? > : > 9 = 0 A 2 5 B ; > 8 E ; 0 4 = > < O A B > - > : > ; > 10-15 !. > ; 8 2 0 = 5 B >  
 A 5 A 2 5 6 4 0 4 > < 8 = 8 < C <, 0 : > 5 A B C 4 5 = >. " > @ 5 = 5 B > A 5 A ? 8 @ 0.  
 @ 5 7 ? @ > ; 5 B B 0 A 5 ? @ 5 A 0 6 4 0 2 E @ 0 = 8 B 5 ; = 0 3 @ 0 4 8 = A : 0 ? @ J A B.  
 1 C B 8 ; > = J B A 5 = C 6 4 0 5 > B < = > 3 > A ; J = F 5. @ 5 7 ; O B > B > 5

4 > 1 @ 5 4 0 A 5 8 7 = 5 A 5 = 0 2 J =. " @ O 1 2 0 4 0 A 5 ? >; 8 2 0 1 5 4 @ >, 4 0 A 5  
 B > @ 8 2 A O : 0 A 5 4 < 8 F 0, 4 0 A 5 ? > 4 @ O 7 2 0 8 4 0 A 5 ? 0 7 8 > B ; 8 A B = 8 B 5  
 2 J H : 8. : > 1 0 G 5 > A B 0 = 5 2 A B 0 O B 0, B @ O 1 2 0 4 0 A 5 > @ > A O 2 0 : 0 B >  
 A 5 ? 0 7 O B F 2 5 B G 5 B 0 B 0 > B = 0 < > : @ O = 5.  
 > 1 @ 5 5 4 0 A 5 ? > 4 = > 2 O 2 0 ? @ 5 7 = O : >; : > 3 > 4 8 = 8, G @ 5 7  
 2 : > @ 5 = O 2 0 = 5 = 0 ? >; C 2 4 J @ 2 5 = 8 @ 5 7 = 8 F 8 2 J 2 2 > 4 0 8 ; 8  
 < > : J @ @ 5 G 5 = ? O A J :.  
 ! J 2 5 B: 0 4 0 F J D B 8 = 0 ? @ >; 5 B ? > 4 @ 5 6 5 B 5 A < 5 ; >.  
 ? 0 A => A B 8:  
 - ! C E 2 J 7 4 C E;  
 - 0 A C H 0 2 0 = 5 = 0 ? > G 2 0 B 0;  
 - @ 5 ? >; 8 2 0 = 5.  
 J 2 2 A 8 G : 8 B 5 7 8 A; C G 0 8 7 0 ? > G 2 0 B 4 0 > ? 0 4 2 0 B ; 8 A B 0 B 0,  
 F 2 5 B > 2 5 B 5, ? J ? : 8 B 5.

@ 5 4 8 B 5 ; 8:  
 - 8 A B = 8 2 J H : 8;  
 - 5 ; > : @ 8 ; : 8;  
 - : 0 @ 8.  
 5 @ : 8 7 0 1 > @ 1 0 < 0 E 0 B A 5 < = > 3 > ? > @ 0 7 5 = 8 B 5 G 0 A B 8 = 0  
 @ 0 A B 5 = 8 5 B >, 8 7 < 8 2 0 A 5 A J A A 0 ? C = 5 = 0 2 > 4 0, ? @ J A : 0 A 5 A J A  
 A J > B 2 5 B 5 = ? @ 5 ? 0 @ 0 B.

0 : 4 0 3 > ? > A 5 5 <:  
 1. ! 5 < 5 = 0 B 0 = 0 0 1 C B 8 ; > = 0 B @ O 1 2 0 4 0 A 5 7 0 A 5 O B 2 B 0 O ? > G 2 0, 2  
 : > O B > I 5 @ 0 A B 0 B 8 7 0 = 0 ? @ 5 4.  
 ! C 1 A B @ 0 B 0 B @ O 1 2 0 4 0 1 J 4 5 ; 5 : 8 4 > A B 0 B J G => E @ 0 = 8 B 5 ; 5 =.  
 > 1 @ 5 5 2 C = 8 2 5 @ A 0 ; = 0 B 0 ? > G 2 0 4 0 ? @ 8 1 0 2 8 B 5 A < 5 A 7 0  
 : 0 B C A 8 8 2 5 @ < 8 : C ; 8 B. @ > ? > @ F 8 8 - = 0 > : >. > 6 5 2 < 5 A B >  
 2 5 @ < 8 : C ; 8 B 4 0 A 5 4 > 1 0 2 8 ? O A J :, => A C 1 A B @ 0 B 0 I 5 A B 0 = 5  
 B 5 6 J : 8 ; > H > 2 J 7 4 C E ? @ > 2 > 4 8 <. 0 A 5 < 5 = 0 B 0 5 < = > 3 >  
 2 0 6 => 2 J 7 4 C E >- 2 ; 0 3 > ? @ > 2 > 4 8 < 0 8 E @ 0 = 8 B 5 ; = 0 ? > G 2 0.

2. 0 2 ; 0 6 = 5 B 5 ? > G 2 0 B 0 2 A 0 : A 8 O B 0, A ; > 6 5 B 5 A 5 < 5 = 0 B 0,  
 ? > A 8 ? 5 B 5 A ? > G 2 0, = > = 0 B 8 A : 0 9 B 5 A 8 ; = >. > 6 5 4 0  
 A ; > 6 8 B 5 ? > 3 A 5 < 5 = F 0 > B 2 8 4 2 A 0 : A 8 O 7 0 @ 0 7 A 0 4, 7 0 I > B >,  
 ? J @ 2 > - = 5 2 A 8 G : 8 < > 3 0 B 4 0 ? > = 8 ; = 0 B. B > @ > - : > 3 0 B >  
 ? > = 8 ; = 0 B 8 @ 0 7 1 5 @ 5 B 5 = C 6 5 = ; 8 2 8 5 B > G => B > O F 2 O B, B > 3 0 2 0  
 < > 6 5 4 0 @ 0 7 A 0 4 8 B 5, ? @ 5 A 0 4 8 B 5 8 ? @ 5 E 2 J @ ; 8 B 5.

3. ! ; 5 4 ? > A 5 2 0 7 0 E ; C ? 5 B 5 A 1 C B 8 ; : 0 8 ; 8 ? @ > 7 @ 0 G 5 =  
 = 0 9 ; > = > 2 ? ; 8 . > A B 0 2 5 B 5 = 0 B > ? ; > < O A B >, = 5 = 0 ? 5 @ 2 0 7 0,  
 = > 8 = 5 = 0 ? 0 @ = > B >. > @ < 0 ; = > B > ? ; >, 2 2 - 2 5 !. > 3 0 B >  
 ? > = 8 ; = 0 B A 5 < 5 = 0 B 0 (> B 3 4 > 7 - 10 4 = 8), ? > G 0 : 0 9 B 5 4 0 " 8 7 ? @ 0 2 O B  
 3 ; 0 2 8 G : 8 " 8 < 0 E = 5 B 5 ? ; 8 : 0 / 1 C B 8 ; : 0 B 0. > : @ 8 2 0 = 5 B > 5  
 = C 6 => A 0 < > 7 0 B > 2 0, 4 0 A 5 A J E @ 0 = 8 2 ; 0 6 => A B B 0 2 ? > G 2 0 B 0  
 B 0 : 0, G 5 A 5 < 5 = 0 B 0 4 0 = 5 A 5 7 0 A C H 0 B 8 ; 8 ? @ 5 ? >; 5 O B.

&

/ & " /

!B @ 0 = 8 F 0 3/3

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4. ">2 0 5 <=>3 > 2 0 6 5 = <><5 = B. >A 5 2 J B <>6 5 1 J @ 7 > 4 0 A 5  
? @ 5 A C H 8, => = 5 5 8 7 :; N G 5 => 8 4 0 A 5 ? @ 5 ? >; 5 5. :> = 5 A B 5  
A J 2 A 5 < C 2 5 @ 5 = 8 2 A 2 > 8 B 5 2 J 7 <> 6 => A B 8 @ 0 2 => <5 @ = > 8  
@ 5 3 C ; O @ = > 4 0 ? >; 8 2 0 B 5 ? > = 8 : = 0 ; 8 B 5 A B J 1 J ; F 0, ? >- 4 > 1 @ 5  
3 8 > A B 0 2 5 B 5 ? >- 4 J ; 3 > ? > 4 1 C B 8 ; : 0 B 0.  
% C 1 0 2 > 5 4 0 A 5 4 >> A 2 5 B O 2 0 B, 7 0 I > B > 1 5 7 A 2 5 B ; 8 = 0 1 J @ 7 > 1 5  
A 5 8 7 4 J ; 6 J B.

5. > 3 0 B > A 5 ? > O 2 O B 2 - 3 = 0 A B > O 1 8 ; 8 A B 5 = F 0, <> 6 5 4 0  
7 0 ? > G = 5 B 5 ? > < 0 ; : > 4 0 B > @ 8 B 5. B = 0 G 0 ; > N = P = K. 5 4 = J 6 = 0 1 0  
4 = 8. @ 8 ? > O 2 0 B 0 = 0 ? J ? : 8 - B > @ A ? > 2 8 H 5 => A J 4 J @ 6 0 = 8 5 = 0  
D > A D > @ 8 : 0 ; 8 O. ! J I > 2 5 4 = J 6 = 0 1 0 4 = 8. 5 A 5 C 2 ; 8 G 0 9 B 5 2  
:> = F 5 = B @ 0 F 8 O B 0 = 0 B > @ 0. ! ? 0 7 2 0 9 B 5 C : 0 7 0 = 8 O B 0 = 0  
8 = A B @ C : F 8 O B 0.

6. @ 5 E 2 J @ ; 5 B 5 2 ? >- 3 > ; O < 0 A 0 : A 8 O A 0 <> ? @ 8 = 0 ; 5 6 0 1 0  
= C 6 4 0. 1 C B 8 ; > = 8 B 5 F J D B O B 8 2 < 0 ; : 8 A 0 : A 8 8.

G 0 : 2 0 9 B 5 ? 8 I => 8 1 C 9 => F J D B 5 = 5 A ; 5 4 2 B > @ 0 B 0 3 > 4 8 = 0, 4 >  
B > 3 0 2 0 1 5 F J D B O B = 5 B > ; : > 2 0 > 1 8 ; = >.

7. > 4 : 0 A B @ O 9 B 5 A ; 5 4 ? J @ 2 0 B 0 3 > 4 8 = 0, ? @ 5 7 ? @ > ; 5 B B 0