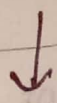


A	6	7	8	9	10	11	12	13	14
U	13	14	15	16	17	18	19	20	21
G	20	21	22	23	24	25	26	27	28
18	27	28	29	30	31				

Saturday

August 2018

8.00 Auxin also stimulates differentiation of xylem and phloem. Experiments on stem tissues have shown that low auxin concn induce phloem differentiation, whereas high IAA levels induce xylem.



11.00 In cucurbits and many other plants, the flower is bisexual in its early stages. Application of auxin during bisexual stage ensures the formation of female flowers.



2.00 Auxin is known to delay early stages of leaf abscission and to promote the later stages. During the early stages of leaf abscission, application of auxin inhibits leaf drop.

Auxin Induced Genes Fall into Two Classes: Early and Late.

One of the imp functions of signal transduction pathway initiated when auxin binds to its receptor is the activation of a group of transcription factors.



The activated transcription factors enter the nucleus and promote the expression of specific genes.

Auxin Induced Genes

Early genes /
Primary response
genes

Late genes.

1) Transcribed by pre-existing transcription factors.

Transcribed by newly synthesized transcription factors.

2) Cannot be inhibited by protein synthesis inhibitors (cycloheximide).

Five major classes of early auxin-responsive genes have been identified:-

• Genes involved in auxin-regulated growth and development:-

1) The AUX/IAA gene family.

2) The SAUR gene family.

3) The GH3 gene family.

18

Saturday

Day 230 + 100
Date 18 + 08 + 2018
August 2018

10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31								

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M	T	W	T	F	S	S	S
					1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	18

Week 34

Day 233 • 132

Date 21 • 08 • 2018

August 2018

21

Tuesday

↓
 GH3 early gene are stimulated by auxin within 5 minutes. They appear to function in light regulated auxin responses.

Early Auxin Genes are Regulated by Auxin Response Factors.

• An auxin response element (AuxRE) within the promoters of the early auxin genes is usually combined with other response elements to form auxin response domains.

↓
 A family of auxin response factors (ARFs) function as transcriptional activators by binding to the promoters of early auxin response genes.

↓