

Equilibrium moisture content of Seeds

Table down below gives a clear understanding of the equilibrium moisture (EM) of different crops. Moisture in seeds will be in balance with the moisture content of the surrounding air around the seeds. So the EM of the seeds is dependent on the moisture content of the surrounding air. The moisture content of the seeds will be high when the surrounding air has a high moisture content. Roughly you can say that the moisture content of the seeds will correspond with the EM of the surrounding air.

When the moisture content of the seeds is higher than the surrounding, the moisture will be exuded to the surrounding air. The moist air must be evacuated and refreshed by dry air. This process must be proceeding till the seeds have reached the required EM.

Usually the relative moisture (RM) content of the seeds is measured to determine the moisture content of the seeds. Please note; this is only in relation when the temperature of the surrounding air is 25 °C! The EM will give a more secure result when the temperature can fluctuate.

With the ABC processor from Agratechniek you can dry the seeds automatically to the required EM by programming the corresponding RH or EM of the air.

R.V. at T=25°C>	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
A.V. (gr moist / kg air)>	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0
Species																			
Alfalfa	4.8	5.6	6.4	7.1	7.8	8.4	9.0	9.5	10.0	10.8	11.7	12.8	14.0	14.5	15.0	15.5	16.0	16.5	17.0
Asparagus				7.3	7.8		9.2				11.7								
Barley (JB)		6.0			8.4			10.0			12.1			14.4			19.5		26.8
Barley 15			6.3								13.4	14.4	15.4	16.5	17.8	19.6	21.9		
Barley 25	6.2	6.0	6.8	7.5	8.3	9.0	9.8	10.6	11.4	12.3	13.2	14.1	15.0	16.1	17.2	19.4	22.7	24.6	26.5
Bean	4.7	5.7	6.8	7.6	8.5	9.3	10.1	10.8	11.6	12.3	13.1	13.9	14.8	15.9	17.2	19.5	22.6		
Bean	3.1	4.1	5.1	6.1	7.1	8.1	9.1	10.1	11.2	12.1	13.2	14.3	15.8	18.0	20.5	23.1	27.8		
Bean, Broad	4.2		5.8		7.2			9.3			11.1			14.5	17.2				
Bean, Broad (JB)	4.7		6.8		8.5		10.1		11.6		13.1		14.8		17.2		22.6	+27.	
Bean, French		5.0	5.5	6.0	6.5	7.1	7.8	8.5	9.2	10.1	11.0	12.0	13.0	14.0	14.5	15.0	15.6	16.2	16.7
Bean, Lima	4.6	5.6	6.6	7.1	7.7	8.2	8.6	9.2	9.9	10.4	11.0	12.0	12.9	13.8	15.0	15.6	16.5	17.4	18.3
Bean, Runner							8.8	10.2	11.2	12.0	12.9	14.3	15.9	17.8	20.8	25.0	29.7		
Bean, snap	3.0	3.9	4.8	5.8	6.8	7.8	8.8	9.4	10.3	11.1	12.0	13.0	14.0	15.0	16.0	16.7	17.6	18.5	19.4
Bean, snap (W)				6.1	7.1	8.1	9.1	10.1	11.2	12.1	13.2	14.3	15.8	18.0	20.5	23.1	27.8		
Beet	2.1	3.0	4.0	4.9	5.8	6.4	7.0	7.6	8.2	8.8	9.4	10.0	10.6	11.2	15.0	12.4	13.0	13.6	14.2
Beet, garden	4.7	5.8	7.0	7.8	8.6	9.2	9.8	9.9	10.1	11.4	12.7	13.6	14.6	15.5	16.5	17.4	18.4	19.3	20.3
Bentgrass, Common		6.3	6.4	6.6	8.2	7.3	7.9	10.2	9.2	9.8	10.5	10.7	11.5	12.5	14.0	14.5	19.2		
Bentgrass, Common		6.3			6.7	7.3	7.9	8.5	9.2	9.8	10.5	11.3	12.1	13.0	14.4	16.2	19.2		
Bentgrass, Creeping		6.3			8.2			10.2		9.7		10.8	11.3	12.7	14.3	16.4			
Bermudagrass (hulled)		6.3			8.4			10.5											
Bermudagrass (unhulled)		6.8			9.3			11.8											
Birdsfoot Trefoil													8.3	10.4	13.9	17.2			
Birdsfoot Trefoil (broadleaf)		5.9			7.8			9.7											
Birdsfoot Trefoil (narrowleaf)		5.9			7.8			9.7											
Black salsify								8.1											
Buckthorn				4.4															
Buckwheat	5.7	6.7	7.6	8.1	9.1	9.8	10.5	10.8	11.4	12.0	12.7	13.5	14.2	15.0	16.5	17.5	19.1	21.8	24.5

Equilibrium moisture content of Seeds

Cabbage	3.2	3.5	4.6	5.0	5.4	5.7	6.1	6.4	6.9	7.3	7.6	8.3	8.9	9.6	10.0				
Cabbage (JB)	3.1		3.9		4.5		5.2		6.0		6.9		8.0		9.3		12.1		15.5
Cabbage, Chinese	2.4	2.9	3.4	4.0	4.6	5.2	6.0	6.3	7.1	7.4	7.8	8.2	8.8	9.4					
Capsicum		6.0	6.3	6.5	7.0	7.0	7.3	7.5	8.2	9.0	9.6	10.4	11.0						
Caraway	4.7	5.2	5.7	6.2	6.7	7.2	7.8	8.4	9.0	9.6	10.3	11.1	12.0	13.0	14.5	16.5	19.8		
Carrot	4.4	5.1	5.8	6.2	6.9	7.4	7.9	8.4	8.9	9.4	10.0	10.9	11.9	13.0	14.2				
Carrot (JB)	4.5		5.9		6.8			7.9			9.2			11.6	12.5				
Celery	5.8	6.4	7.0	7.4	7.8	8.2	8.6	9.0	9.5	10.0	10.4	11.0	11.7	12.4	13.5				
Chicory			4.5	5.8	6.5			8.1		8.6	8.9	9.2	9.5		11.7				
Chicory-witloof			4.5	5.5	6.5	7.0	7.5	8.1	8.3	8.6	8.9	9.2	9.5	10.6	11.7				
Chives	3.4	4.2	5.1	6.0	6.9	7.6	8.5	9.4	10.2	11.1	11.8	12.6	13.3	14.0	14.8	15.5	16.2	16.9	17.6
Clover, Alsike		6.1			7.9			9.7					9.3		15.9	18.9			
Clover, Crimson		5.9			8.0			10.1											
Clover, Red		5.7	6.3	6.9	7.6	8.2	8.8	9.4	10.0	10.7	11.4	12.1	9.1	11.2	15.6	18.7			
Clover, Strawberry (palestina)		6.6			8.4			10.3											
Clover, Strawberry (salina)		4.3			5.7			7.0											
Clover, subterranean		5.1			6.9			8.7											
Clover, Swedish		6.1	6.7	7.3	7.9	8.5	9.1	9.7						15.9	18.9				
Clover, White		5.9	6.0	6.6	7.8	7.8	8.4	9.7					8.7	10.9	15.4	18.0			
Clover, Yellow sweet		5.9			7.6			9.3					9.3	10.8	12.7	18.3			
Cocksfoot		6.0	6.6	7.4	8.0	8.9	9.8	10.3	10.8	11.3	11.8	12.4	13.4	14.4	16.6				
Cocksfoot (JB)		6.0			8.0			10.0		9.8		10.5	11.0	12.0	13.4	14.9			
Corn salad					7.1	7.7	8.2	8.8	9.0	9.2	10.0	10.8							
Corn, field		6.5	7.1	7.7	8.5	8.9	9.4	9.9	10.7	11.4	12.2	12.7	13.2	13.6	15.4	16.8	18.3	20.6	23.0
Corn, Popcorn Shelled		6.8	7.4	7.9	8.5	8.9	9.3	9.8	10.6	11.4	12.2	12.7	13.2	13.6	15.4	16.8	18.3	20.6	23.0
Corn, Shell white dent	5.1	6.6	7.2	7.8	8.4	9.1	9.7	10.4	12.2	12.0	12.9	13.5	14.1	14.7	16.2	17.4	18.9	21.7	24.6
Corn, Shell, yellow dent		6.4	7.1	7.7	8.4	9.1	9.8	10.5	11.3	12.2	12.9	13.5	14.2	14.8	16.2	17.7	19.1	21.4	23.8
Corn, sweet	3.8	4.8	5.8	6.4	7.0	7.7	8.4	9.0	9.5	10.0	10.6	11.4	12.0	12.8	14.0				
Cotton	3.7		5.2		6.3	6.5	6.9	7.5	7.8	8.5	9.1	9.8	10.1	11.5	12.9	15.5	19.6		
Couch Grass		6.1			8.1			10.1											
Cucumber	2.6	3.4	4.3	4.9	5.6	6.1	6.6	7.1	7.5	7.9	8.4	9.0	9.6	10.1	10.2				
Egg plant	3.1	4.7	4.9	5.6	6.3	6.8	7.4	8.0	8.6	9.2	9.8	10.4	11.2	11.9	12.5	13.1	13.7	14.3	14.9
Endive	3.5	4.0	4.5	5.2	6.0	6.2	6.4	6.6	6.8	7.7	8.7	9.3	9.9	11.5	13.2	14.1	15.0	15.9	16.8
Fescue, Red	3.8				7.0	8.0	8.8	9.6	10.3	10.9	11.6	12.6	13.8	15.3	17.3	19.8	23.1		
Fescue, Red (JB)		6.5			8.7			10.9		10.7		11.9	12.6	13.8	15.4	18.0			
Fescue, Red (JB)		6.5			8.7			10.9		10.0		11.2	12.1		14.5	16.9			
Fescue, Tall		6.5	7.3	8.0	8.7	9.5	10.2	10.9	11.2	11.5	11.7	11.9	12.5	13.2	15.0	17.3			
Field mustard	2.6		4.0		5.1			6.3			7.4			9.0					
Flax	3.3	4.4	4.9	5.2	5.6	5.8	6.1	6.3	6.8	7.3	7.9	8.6	9.3	10.0	11.4	13.9	15.2	18.3	21.4
Flax (W)	3.3	4.4	4.9		5.6		6.1		6.8		7.9		9.3		12.4	14.5	15.2		
Foxglove, Common									7.1										
Garden cress	1.9	2.8	3.7	4.6	5.5	6.4	7.3	8.2	9.1	9.5	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0
Grass, Dallis		5.9			7.8			9.7											
Grass, Reed canary									11.4		12.0	12.5	13.5	14.7	15.7				
Grass, Reed canary (JB)		6.2			8.1			9.9											
Groundnut	3.0	2.6	3.9	3.7	4.2	4.7	5.1	5.6	5.9	6.7	7.0	8.1	8.5	9.8	11.1	12.0	17.2	13.9	15.0
Lavender									8.5										
Lettuce	3.0	4.0	4.2	4.6	5.0	5.4	5.9	6.3	6.7	7.15	7.6	8.3	9.1	9.6					
Lettuce (JB)	2.8		4.2		5.1			5.9			7.1			9.6	10.0				
Linseed	3.3	4.4	4.9	5.2	5.6	5.8	6.1	6.4	6.8	7.9	8.3	8.9	9.3	10.0	12.4	14.5	15.2		
Lupin, Garden						8.3	9.1		10.0		11.1		12.3						
Lupin, Yellow	4.2	5.2	6.2	7.0	7.8	8.4	9.1	9.8	10.5	22.2	11.7	12.5	13.4	14.5	16.7		(+)	25	
Maize	6.2	6.4	7.9	8.6	9.3	10.0	10.7	11.3	11.9	12.5	13.1	13.8	14.6	15.5	16.5	18.6	20.7		
Marjoram						6.5		7.0	7.3	7.5									
Mustard	1.8	4.0	3.2	4.4	4.6	5.2	5.8	6.3	6.7	7.2	7.8	8.3	8.9	9.4					

