

DRYING INSTALLATIONS & EQUIPMENT Equilibrium moisture content of Seeds

Table down below gives a clear understanding of the equilibrium moisture (EM) of different crops. Moist into 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 moist content of the surrounding air. The moist content of the seeds will be high when the surrounding air has a high moist 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 moist 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.

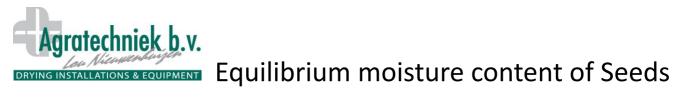
Usually the relative moisture (RM) content of the seeds is measured to determine the moisture content of the seeds. Please note; this is only in relation when the temperature of the surrounding air is 25 °C! The EM will give a more secure result when the temperature can fluctuate.

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.

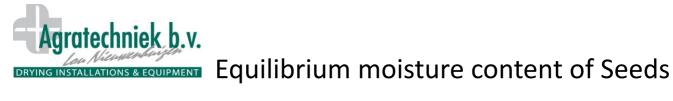


AGRATECHNIEK B.V.
P.O. Box 91, 1760 AB Anna Paulowna, The Netherlands
Tel: +31 223-522824 Fax: +31 223-521949

SEED DHYING INSTALLATIONS & TRACEASILITY								Tel. +31 223-522824 Fax. +3					1 223-521949							
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	- 2	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	
· · · · · · · · · · · · · · · · · · ·																				



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	7.0	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	012	0.0	8.1	0.0	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				1210	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	010		8.0	010	0.0	10.0	1010	9.8	1110	10.5	11.0	12.0	13.4	14.9			
Com salad		0.0			7.1	7.7	8.2	8.8	9.0	9.2	10.0	10.8	11.0	12.0	1014	14.0			
Com, 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	5.1	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		10.1	211.7	20.0
Cotton	3.7		5.2	011	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	5.1	6.1	512		8.1	0.0	0.0	10.1	7.0	0.0	5.1	5.0	10.1	11.5	12.0	10.0	10.0		
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	4.0	4.5	JIE	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	13.3	10.0
Fescue, Red (JB)	3.0	6.5			8.7	0.0	0.0	10.9	10.5	10.7	11.0	11.9	12.6	13.8	15.4	18.0	23.1		
Fescue, Red (JB)		6.5			8.7			10.9		10.0		11.2	12.1	13.0	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	0.3	4.0	0.0	5.1	5.5	10.2	6.3	11.2	1113	7.4	11.3	12.3	9.0	13.0	17.3			
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	103	21.4
Flax (W)	3.3	4.4	4.9	J.E	5.6	5.0	6.1	0.5	6.8	1.0	7.9	0.0	9.3	10.0	12.4	14.5		10.3	21.4
Foxglove, Common	3.3	4.4	4.3		5.0		0.1		0.0	7.1	1.5		9.3		12.4	14.3	13.2		
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	1.9	5.9	J.1	4.0		0.4	1.3		9.1	3.3	10.0	11.0	12.0	13.0	14.0	15.0	10.0	17.0	10.0
Grass, Reed canary		5.9			7.8			9.7		11.4		42.0	12.5	42 E	14.7	15.7			
		6.2			0.4			0.0		11.4		12.0	12.5	13.5	14.7	15.7			
Grass, Reed canary (JB)	2.0	6.2	2.0	2.7	8.1	4.7	F.4	9.9		0.7	7.0	0.4	0.5		44.4	42.0	47.0	42.0	45.0
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
Latture	2.0	4.0	4.2	4.0	E 0	E 4	E 0	6.2	8.5	7.45	7.0	0.3	0.4	0.6					
Lettuce (IR)	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	40.0				
Lettuce (JB)	2.8		4.2		5.1			5.9		7.	7.1	0.5		9.6	10.0	4	45.5		
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		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					



											44.5			40.0			40.5		
Oats (JB)		5.7			8.0			9.6			11.8			13.8			18.5		24.1
Oats 15		_									12.5	13.4	14.3	15.4	18.0	20.0	22.6	25.2	27.8
Oats 25	5.6	7.2	7.6	8.0	8.4	8.7	9.9	10.2	11.2	11.7	12.5	13.3	14.3	15.3	16.8	18.6	22.3		24.1
Okra	3.8	7.5	7.2	8.1	8.3	8.7	9.9	10.0	11.2	11.7	11.2	13.3	14.3	13.1	14.5	18.6	22.3		
Onion	4.6	5.7	6.8	7.4	8.0	8.5	9.0	9.5	10.0	10.6	11.2	11.9	12.6	13.4	13.6				
Onion,Welsh	3.4	4.2	5.1	6.0	6.9	7.7	8.8	9.4	10.3	10.9	11.8	12.6	13.4	14.0					
Opium poppy		_		4.4	4.9	5.4	5.9	6.3	6.9	7.4	8.0	8.7	9.5	10.3	11.7	13.7	17.0		
Parsley		_	5.7	6.0	6.4	7.1	7.9	8.0	8.2	9.0	9.9	10.5	11.1						
Parsnip	5.0	5.5	6.1	6.5	7.0	7.4	7.8	8.2	8.6	9.0	9.5	10.1	10.6	11.2					
Pea	5.4	6.1	7.3	7.8	8.6	9.4	10.3	11.1	11.9	12.7	13.5	14.2	15.0	15.9	17.1	19.0	22.0		
Pea (JB)	5.4		7.3		8.6			10.1			11.9			15.0	15.5				
Pea (JB)	5.3		7.0		8.6		10.3		11.9		13.5		15.0		17.1		22.0	26.0	
Pea, Sweet							10.5		12.8		13.4		14.2						
Pepper	2.8	3.6	4.5	5.2	6.0	6.6	7.2	7.8	8.3	8.7	9.2	9.8	10.4	11.0	12.0				
Poppy-seed	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.3	6.9	7.4	8.0	8.7	9.5	10.3	11.7	13.7	17.0	17.8	18.6
Pumpelly's Brome		6.6			9.0			11.5		11.0		12.5	13.1	13.7	16.1	18.4			
Purslane, Common						8.6	9.6	10.7	11.9	12.6	13.3	13.5	13.8						
Radish	2.6	3.2	3.8	4.4	5.1	5.7	6.2	6.8	7.3	7.8	8.3	8.9	9.5	10.2					
Rapeseed	3.1	3.5	3.9	4.4	4.7	5.3	5.5	6.2	6.3	7.0	7.3	8.0	8.4	9.1	10.1	12.0			
Rhubarb										12.8									
Rice		5.9	7.6	8.2	8.6	9.6	10.2	10.7	11.3	11.9	12.8	13.3	13.8	14.6	15.8	16.8	18.4	20.8	23.6
Rose clover		5.2			7.2			9.2											
Rye 15	6.9	7.0	8.2	8.6	9.0	9.3	10.5	10.9	12.0	12.4	13.4	14.0	15.0	15.7	17.4	20.1	23.0		
Rye 25	0.0	7.0	7.6	8.2	8.7	9.4	10.0	10.5	11.1	11.7	12.2	13.1	13.9	14.8	16.6	18.5	20.6	23.6	26.7
Ryegrass, Intermediate		7.1	7.8	8.4	9.1	9.8	10.5	11.0		9.4	12.12	1011	11.9	12.9	13.9	16.2	20.0	2010	20
Ryegrass, Italian		6.5	7.2	7.9	8.6	9.2	10.0	10.7		11.2	12.5	13.0	13.8	15.0	15.7	16.3			
Ryegrass, Italian (JB)		6.5	1.2	1.5	8.6	3.2	10.0	10.7		11.0	12.3	12.1	12.8	14.1	15.7	16.3			
Ryegrass, Ranan (35)	4.5	5.5	6.5	6.8	7.6	8.8	9.1	9.9	10.6	11.2	12.5	12.9	14.2	15.3	17.1	19.9	23.3		
Ryegrass, Perennial (JB)	4.3	6.5	0.5	0.0	8.6	0.0	3.1	10.7	10.0	11.0	12.3	12.1	12.8	13.4	14.9	16.6	23.3		
Sage, Common		0.5			0.0			10.7	8.0	11.0		12.1	12.0	13.4	14.9	10.0			
							8.2		9.1		40.6		11.4						
Sage, Scarlet Sesame seed							0.2		9.1		10.6		11.4						
		-							40.5	44.0	40.0	40.0							
Smooth Meadow-grass	5.9	6.2	6.5	6.8	7.5	8.3	9.0	9.7	10.5	11.2	12.0	12.8	13.5	14.6	16.1	18.1	21.3		
Smooth Meadow-grass (JB)		6.2			8.2			10.1											
Sorghum	4.4	6.4	7.3	7.9	8.6	9.2	9.9	10.5	11.0	11.5	12.0	13.0	14.2	15.2			18.8	20.3	21.9
Sorghum, Hybrid Ute		6.1			8.3			10.6		_									
Sorghum, Sudanense, hybrid		5.2			7.3			9.4											
Sorghum, Sudanense,piper										10.8			11.8		14.4	15.6			
Soyabean 15	4.3	5.0	5.7	6.1	6.5						10.1						21.9		
Soyabean 25	3.8	4.3	5.5	5.9	6.5	6.8	7.1	7.4	8.0	8.6	9.3	10.5	11.5	13.1	14.8	16.4	18.8		
Spinach	4.6	5.5	6.5	7.1	7.8	8.3	8.9	9.5	10.0	10.6	11.1	11.8	12.4	13.2	14.5				
Squash, winter	3.0	3.6	4.3	4.9	5.6	6.2	6.8	7.4	7.9	8.4	9.0	9.6	10.2	10.8					
Sugar Beet	4.4	5.3	6.3	7.1	8.0	8.9	9.4	10.2	10.7	11.3	12.0	13.0	13.3	14.5	16.6	18.6	20.5		22.5
Sunflower					5.1	5.6	6.0	6.5	7.0	7.5	8.0	8.7	9.3	10.0	11.5	13.5	15.0		
Timothy-grass		1								10.9	11.3	11.8	12.5	13.6	14.6	16.1			
Tomato	3.2	4.1	5.0	5.6	6.3	6.9	7.5	7.8	8.3	8.7	9.2	10.1		11.1	12.0				
Turnip	2.6	3.3	4.0	4.6	5.1	5.5	5.9	6.3	6.7	7.0	7.4	7.9	8.5	9.0	10.0				
Vetch, Fodder													11.0	13.0	17.4	18.7			
Watermelon	3.0	3.5	4.8	4.5	6.1	5.6	5.9	7.6	6.7	7.1	8.8	7.9	8.4	10.4	11.0				
Wayfaring Tree					5.8			1											
Wheat 15	6.0	7.0	8.0	8.6	9.3	9.9	10.7	11.2	12.0	12.8	13.8	14.7	15.6	16.6	17.6	19.6	22.4		
Wheat 25	5.2	6.5	7.5	8.0	8.5	9.2	9.9	10.4	11.1	11.6	12.1	12.9	13.7	14.6	15.9	19.2	19.8	23.0	26.3
Wheat, durum		6.6	7.2	7.8	8.5	9.1	9.5	10.0	10.5	11.0	11.5	12.4	13.2	14.1	15.4	18.0	19.3		26.6
Wheat, hard 15			7.9								13.7								
Wheat, hard 25			7.5								13.0								
Wheat, hard red spring		6.8	7.3	7.9	8.5	9.0	9.5	10.1	10.7	11.2	11.8	12.8	13.8	14.8	16.6	17.9	19.7	22.3	25.0
Wheat, white		6.7	7.3	7.9	8.6	9.0	9.4	9.9	10.5	11.2	11.8	12.9	13.9	15.0	16.1	18.5	19.7		26.3
Wheat, Winter Hard Red		6.4	7.1	7.8	8.5	9.3	9.9	10.5	11.1		12.5	13.1	13.8	14.6	16.1	17.9	19.7		25.0
Wheat, Winter Soft Red		6.3	7.0	7.7	8.6	9.3	9.9	10.5	11.0	11.4	11.9	12.8	13.8	14.6	16.1	17.9	19.7		25.6
		3.0			5.0	510	010	. 0.0	. 110			.2.10	.010	. 110					_5.0