

Energy Department Myth: A/C and Mold Growth

- **MYTH: Decreasing the temperature in a humid area will help to prevent mold.**
- **FACT: Increasing the temperature in a humid area will help to prevent mold.**
- Mold develops from condensation on objects whose surface temperature is **BELOW** the dew point.
- As you can see from the chart below, as relative humidity increases, so does the dew point.

DEW POINT CALCULATION CHART

		Ambient Air Temperature- Fahrenheit									
Relative Humidity	20	30	40	50	60	70	80	90	100	110	120
90%	18	28	37	47	57	67	77	87	97	107	117
85%	17	26	36	45	55	65	75	84	95	104	113
80%	16	25	34	44	54	63	73	82	93	102	110
75%	15	24	33	42	52	62	71	80	91	100	108
70%	13	22	31	40	50	60	68	78	88	96	105
65%	12	20	29	38	47	57	66	76	85	93	103
60%	11	19	27	36	45	55	64	73	83	92	101
55%	9	17	25	34	43	53	61	70	80	89	98
50%	6	15	23	31	40	50	59	67	77	86	94
45%	4	13	21	29	37	47	56	64	73	82	91
40%	1	11	18	26	35	43	52	61	69	78	87
35%	-2	8	16	23	31	40	48	57	65	74	83
30%	-6	4	13	20	28	36	44	52	61	69	77

SURFACE TEMPERATURE AT WHICH CONDENSATION OCCURS

- **If the surface temperature of an object is BELOW the dew point, condensation will form.**
 - Example: If you are sitting outside on a hot summer day and having a glass of tea, condensation will form on the outside of your glass. The reason for this is that the surface temperature of your glass is **BELOW** the dew point.
- **Therefore, in an area that has a high relative humidity, decreasing the air temperature, will in turn decrease the surface temperature on objects in that area, creating a high opportunity for the development of condensation, and in turn, mold growth.**
- **To prevent the development of condensation, and eventually mold growth, the temperature in a humid area should be increased.**