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## VRE Heat Savings Calculator

The following chart was produced to show the savings obtained by installing a single VRE Shade and Save curtain system in your greenhouses. These numbers apply to any greenhouse glazing materials regardless if they are glass, double poly or a twinwall glazed roof material. The fabric would be either a closed weave shade fabric or a black-out fabric. The actual savings would be higher with a two layer black out fabric.

These numbers are based on year round production greenhouses only, where the curtain systems are closed for 98% of the winter nights when snowloading is not a concern. When snow is allowed to accumulate it is best to leave the curtain open to allow melting to occur to avoid potential structural damage.

The second number of each set below reflects a very conservative savings at 25% of the annual heating \$ spent per square foot of greenhouse area. Actual savings reported in the NGMA report 'Considerations for Internal Curtain Systems' are quoted as follows: "Growers who have installed curtain systems commonly report annual savings of 30% or more."

Savings calculated at  of annual fuel bill for the square foot areas listed on the left column

Square Foot Area	Annual current \$ cost per square foot to heat this area																
	\$1.20	\$1.30	\$1.40	\$1.50	\$1.60	\$1.70	\$1.80	\$1.90	\$2.00	\$2.10	\$2.20	\$2.30	\$2.40	\$2.50	\$2.60	\$2.70	\$2.80
<b>5000 cost</b>	\$6,000	\$6,500	\$7,000	\$7,500	\$8,000	\$8,500	\$9,000	\$9,500	\$10,000	\$10,500	\$11,000	\$11,500	\$12,000	\$12,500	\$13,000	\$13,500	\$14,000
<b>Savings</b>	\$1,500	\$1,625	\$1,750	\$1,875	\$2,000	\$2,125	\$2,250	\$2,375	\$2,500	\$2,625	\$2,750	\$2,875	\$3,000	\$3,125	\$3,250	\$3,375	\$3,500
<b>10000 cost</b>	\$12,000	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000
<b>Savings</b>	\$3,000	\$3,250	\$3,500	\$3,750	\$4,000	\$4,250	\$4,500	\$4,750	\$5,000	\$5,250	\$5,500	\$5,750	\$6,000	\$6,250	\$6,500	\$6,750	\$7,000
<b>15000 cost</b>	\$18,000	\$19,500	\$21,000	\$22,500	\$24,000	\$25,500	\$27,000	\$28,500	\$30,000	\$31,500	\$33,000	\$34,500	\$36,000	\$37,500	\$39,000	\$40,500	\$42,000
<b>Savings</b>	\$4,500	\$4,875	\$5,250	\$5,625	\$6,000	\$6,375	\$6,750	\$7,125	\$7,500	\$7,875	\$8,250	\$8,625	\$9,000	\$9,375	\$9,750	\$10,125	\$10,500
<b>20000 cost</b>	\$24,000	\$26,000	\$28,000	\$30,000	\$32,000	\$34,000	\$36,000	\$38,000	\$40,000	\$42,000	\$44,000	\$46,000	\$48,000	\$50,000	\$52,000	\$54,000	\$56,000
<b>Savings</b>	\$6,000	\$6,500	\$7,000	\$7,500	\$8,000	\$8,500	\$9,000	\$9,500	\$10,000	\$10,500	\$11,000	\$11,500	\$12,000	\$12,500	\$13,000	\$13,500	\$14,000
<b>25000 cost</b>	\$30,000	\$32,500	\$35,000	\$37,500	\$40,000	\$42,500	\$45,000	\$47,500	\$50,000	\$52,500	\$55,000	\$57,500	\$60,000	\$62,500	\$65,000	\$67,500	\$70,000
<b>Savings</b>	\$7,500	\$8,125	\$8,750	\$9,375	\$10,000	\$10,625	\$11,250	\$11,875	\$12,500	\$13,125	\$13,750	\$14,375	\$15,000	\$15,625	\$16,250	\$16,875	\$17,500
<b>30000 cost</b>	\$36,000	\$39,000	\$42,000	\$45,000	\$48,000	\$51,000	\$54,000	\$57,000	\$60,000	\$63,000	\$66,000	\$69,000	\$72,000	\$75,000	\$78,000	\$81,000	\$84,000
<b>Savings</b>	\$9,000	\$9,750	\$10,500	\$11,250	\$12,000	\$12,750	\$13,500	\$14,250	\$15,000	\$15,750	\$16,500	\$17,250	\$18,000	\$18,750	\$19,500	\$20,250	\$21,000
<b>35000 cost</b>	\$42,000	\$45,500	\$49,000	\$52,500	\$56,000	\$59,500	\$63,000	\$66,500	\$70,000	\$73,500	\$77,000	\$80,500	\$84,000	\$87,500	\$91,000	\$94,500	\$98,000
<b>Savings</b>	\$10,500	\$11,375	\$12,250	\$13,125	\$14,000	\$14,875	\$15,750	\$16,625	\$17,500	\$18,375	\$19,250	\$20,125	\$21,000	\$21,875	\$22,750	\$23,625	\$24,500
<b>40000 cost</b>	\$48,000	\$52,000	\$56,000	\$60,000	\$64,000	\$68,000	\$72,000	\$76,000	\$80,000	\$84,000	\$88,000	\$92,000	\$96,000	\$100,000	\$104,000	\$108,000	\$112,000
<b>Savings</b>	\$12,000	\$13,000	\$14,000	\$15,000	\$16,000	\$17,000	\$18,000	\$19,000	\$20,000	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000
<b>45000 cost</b>	\$54,000	\$58,500	\$63,000	\$67,500	\$72,000	\$76,500	\$81,000	\$85,500	\$90,000	\$94,500	\$99,000	\$103,500	\$108,000	\$112,500	\$117,000	\$121,500	\$126,000
<b>Savings</b>	\$13,500	\$14,625	\$15,750	\$16,875	\$18,000	\$19,125	\$20,250	\$21,375	\$22,500	\$23,625	\$24,750	\$25,875	\$27,000	\$28,125	\$29,250	\$30,375	\$31,500
<b>50000 cost</b>	\$60,000	\$65,000	\$70,000	\$75,000	\$80,000	\$85,000	\$90,000	\$95,000	\$100,000	\$105,000	\$110,000	\$115,000	\$120,000	\$125,000	\$130,000	\$135,000	\$140,000
<b>Savings</b>	\$15,000	\$16,250	\$17,500	\$18,750	\$20,000	\$21,250	\$22,500	\$23,750	\$25,000	\$26,250	\$27,500	\$28,750	\$30,000	\$31,250	\$32,500	\$33,750	\$35,000
<b>55000 cost</b>	\$66,000	\$71,500	\$77,000	\$82,500	\$88,000	\$93,500	\$99,000	\$104,500	\$110,000	\$115,500	\$121,000	\$126,500	\$132,000	\$137,500	\$143,000	\$148,500	\$154,000
<b>Savings</b>	\$16,500	\$17,875	\$19,250	\$20,625	\$22,000	\$23,375	\$24,750	\$26,125	\$27,500	\$28,875	\$30,250	\$31,625	\$33,000	\$34,375	\$35,750	\$37,125	\$38,500
<b>60000 cost</b>	\$72,000	\$78,000	\$84,000	\$90,000	\$96,000	\$102,000	\$108,000	\$114,000	\$120,000	\$126,000	\$132,000	\$138,000	\$144,000	\$150,000	\$156,000	\$162,000	\$168,000
<b>Savings</b>	\$18,000	\$19,500	\$21,000	\$22,500	\$24,000	\$25,500	\$27,000	\$28,500	\$30,000	\$31,500	\$33,000	\$34,500	\$36,000	\$37,500	\$39,000	\$40,500	\$42,000

The above table is strictly the heat savings number, there are also a number of other benefits to curtain systems as noted below:

- reduced cooling costs with fan and vent operations
- reduced water consumption on bright sunny days
- reduced condensate drip damage
- improved soil and air temperature control
- less plant stretch and stress
- better quality and more consistent crops
- improved control of light, temperature and humidity
- more comfortable working environment