

**V(A). Planned Program (Summary)**

**Program # 17**

**1. Name of the Planned Program**

Housing Technology

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	100%		100%	
<b>Total</b>		100%		100%	

**V(C). Planned Program (Inputs)**

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	2.8	0.0	0.0	0.0
Actual	2.2	0.0	1.4	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
326922	0	33135	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1319142	0	131455	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
476192	0	416	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity

As the housing crisis continues to reverberate throughout Minnesota, the market for new construction is slow. Existing homes, however, are being refurbished and the remodeling industry is integrating new technology into old structures to conserve energy. Courses to support remodelers in this technology adoption was a major effort for Housing Technology Extension specialists in 2010.

Research for housing technology programs comes from housing specialists within the Extension Center, and from other University resources. Experiment Station support is not typically allocated for housing technology issues.

**2. Brief description of the target audience**

The overall target audience for this information is builders, remodelers, contractors, mitigaters and others involved with avoiding and resolving problems in homes. Considerable effort was invested in remodelers in 2010.

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	600	2500	0	0
<b>Actual</b>	1678	4600	0	0

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

Year: 2010  
 Plan: 0  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2010	Extension	Research	Total
<b>Plan</b>	1	0	
<b>Actual</b>	4	0	4

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Educational courses will be delivered to the target audiences.

Year	Target	Actual
2010	65	85

**Output #2**

**Output Measure**

- New research will result in the development of new and revised educational materials. (Target expressed as the number of new or revised curriculum materials.)

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	1	1

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Improve the durability of new homes by working with builders. (Target expressed as the number of builders trained.)
2	Improve the availability of healthy and affordable housing through the mitigation of indoor environmental risks. (Target expressed as number of homes affected.)

## **Outcome #1**

### **1. Outcome Measures**

Improve the durability of new homes by working with builders. (Target expressed as the number of builders trained.)

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Action Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2010	30	217

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

The durability of homes has an impact on the stability of neighborhoods, as well as the financial and physical well-being of families. Education for builders can assure that builders who remodel have the education and information they need to build secure homes.

#### **What has been done**

Certification and re-certification courses were held for builders. Four day workshops taught remodelers, energy consultants and code officials about: 1) testing homes for combustion safety issues; 2) baseline blower door testing in retrofit work; 3) identifying moisture concerns before retrofit.

#### **Results**

Over 200 builders received the education and updates they need to build secure homes. There was a 52% increase in knowledge of combustion safety issues, a 34% increase in baseline blower door testing, and a 32% increase related to evaluating homes to identify moisture concerns.

### **4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

## **Outcome #2**

### **1. Outcome Measures**

Improve the availability of healthy and affordable housing through the mitigation of indoor environmental risks. (Target expressed as number of homes affected.)

Not Reporting on this Outcome Measure

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

#### **Brief Explanation**

{No Data Entered}

### **V(I). Planned Program (Evaluation Studies and Data Collection)**

#### **1. Evaluation Studies Planned**

- After Only (post program)

#### **Evaluation Results**

{No Data Entered}

#### **Key Items of Evaluation**

{No Data Entered}