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Warning Effectiveness

1

Prediction of Reading Pesticide Warnings
and Consumer Purchasing Intentions

Kathryn Anne Ponsi

University of Richmond

Method

Subjects

Seventy University of Richmond undergraduates participated for credit in their introductory Psychology courses.

Four pesticide experts participated in the study. One was employed by the Virginia Department of Health's Toxic Substance Information Department, one with the Virginia Department of Agriculture and Consumer Services' Office of Pesticide Regulation, and two were administrators from professional pest control organizations was also employed.

Materials

Twenty-six household pesticide products that are available over-the-counter in most hardware, drug, and grocery stores were used. The products consisted of 2 roach fumigators (produced by Hobbs, and Raid), 8 roach foggers (Black Flag, d-CON, Hot Shot, No Roach, Raid, Real Kill, Rid-A-Bug, and TNT), 8 roach sprays (Black Flag, Combat, d-CON, Hot Shot, No-Roach, Raid, Real Kill, and TAT), 4 roach controller systems (Black Flag, Combat, d-CON, and Raid), and 4 roach traps (d-CON, Enoz, Raid, and Strike).

A demographics questionnaire was used which assessed age, gender, geographic location of home, type of residence, familiarity with different types of pesticide products, previous use of pest control products, and

Abstract

Correlates of reading and noticing warnings on consumer products and of consumers' purchasing intentions were examined using ratings of 26 household pest-control products. Seventy college undergraduates were asked to respond to a 19-item questionnaire assessing subjects' perceptions of each product's packaging, labeling, and warning characteristics. Additional data was collected by coding the products for several packaging and warning characteristics, and product effectiveness. The results showed that the products perceived as more hazardous, potent, likely to cause injury, and difficult to use contained warnings that subjects reported they would more likely notice and read. A different cluster of variables were predictive of purchasing intention and included product familiarity, packaging attractiveness, and confidence in knowing the hazards. The relative independence of subjects' purchasing intentions and the variables predictive of noticing and reading warnings suggests that manufacturers can place appropriate and effective warnings on products without the fear of reduced consumer buying intentions.

Prediction of Reading Pesticide Warnings and Consumer Purchasing Intentions

The National Electronic Surveillance System (NEISS) reported the United States national estimate for product-related injury due to pesticides in 1988 to be 14, 736 cases (U.S. Consumer Product Safety Commission, 1988). Of these pesticide-related injuries, 88.3% required medical treatment and were released, and 11.7% resulted in hospitalization. Most pest-control products contain warnings and labeling to inform consumers on how to use the product correctly, and the pests they are effective against. The purpose of the warning is to guard against consumer misuse and accidents.

Broadbent (1977) explained that the success of instructions may differ depending simply upon how they are worded. The same instructions phrased one way may be effective while phrased another way may be ineffective. It is important that manufacturers learn how to effectively present their warnings and instructions so that consumers use them correctly.

There were two purposes for present study. The primary purpose was to investigate the variables predictive of noticing and reading warnings on consumer pest-control products. Some research has already addressed this question (Godfrey, Allender, Laughery, and Smith, 1983; Wogalter, Desaulniers, & Brelsford, 1986). These studies examined a wide

range of consumer product categories. Godfrey, et al. (1983), found that consumers will judge products immediately for overall hazardousness and that subjects were more likely to look for a warning on those products which were perceived as most hazardous.

Wogalter et al. (1986) examined the relationship between subject willingness to read warnings and perceptions of hazardousness and familiarity. The results suggested that perceptions of hazardousness were more important than familiarity when looking at willingness to read the warning. In the present study, in addition to a novice subject group, the judgments of four pesticide experts were also obtained to verify subjects' perceptions of product hazard.

The results of a study by Wright, Creighton, and Threlfall (1982) were in contrast to the general trend found in the studies mentioned above of perceived hazardousness relating strongly to consumers' likelihood of reading warnings and instructions. Wright et al. found no relationship between attitudes concerning product safety and their reported likelihood of reading the instructions.

In another study by Wright (1981), reading of instructions was examined using a variety of products. Wright found that there were some products in every category for which at least 60% of participants reported that they would completely ignore the instructions.

Only one study has addressed the reading of warnings focusing on

several products within a single category. Godfrey and Laughery (1984) demonstrated that with greater familiarity with a tampon product, females were less likely to look for a warning. The consequences of poor labeling and ignored instructions or warnings can be very disastrous. The present research addresses the prediction of noticing and reading warnings using subjects' judgments of several products within a single category, household pest control products.

The second purpose of this study was to investigate whether purchasing intentions could be accounted for by the same variables predictive of reading warnings, and if not, to discover what variables were indicative of consumer purchasing intentions. There is some evidence consistent with the first notion. Ursic (1984) found that people perceive products with warnings to be safer and more effective, and therefore would be more likely to buy them. Manufacturers, however, may believe that the use of harsh or strongly worded warnings will scare of consumers and decrease sales. We examined whether subjects would be more willing to purchase pest-control products having more effective warnings.

Past research examining the effectiveness of warning labels is scarce due to the difficulty of finding a method that will in no way put subjects in danger of injury. For this reason, the present study is perception based and attempts to examine warning label effectiveness without any risk of harm to the subjects.

types of pests the products had been used against.

A 19-item product perception questionnaire was used to assess subjects' perceptions of the products' packaging, labeling, and warnings. Responses were recorded using 8-point Likert-type scales anchored with 0 denoting absence of quantity to 8 indicating maximum quantity. The questions addressed subjects' judgments of the likelihood of noticing or reading the warning on the front or back panels, the understandability of the warnings, the attractiveness of the warnings, familiarity with the product, the potency of the product, the attractiveness of the packaging, the hazardousness of the product, confidence in knowing its hazards, difficulty of its use, likelihood of the product causing injury, degree of care that would be taken when using the product, and likelihood of buying the product (See Appendix A for replicas of the demographic questionnaire and the product perception questionnaire and scales).

Additional data was collected by coding the 26 products for objective characteristics such as chemical contents, percentage of active ingredients, duration of effectiveness, pests effective against, packaging characteristics, characteristics of the warnings such as signal words, location, color, size, number of words, and readability measures (See Appendix B for coded data).

Procedure

Product Perceptions. Subjects were run in groups of three to five.

The pest-control products were assigned a number from 1 to 26 and placed on tables in a large room with their numbered identification card next to them. Subjects completed the demographics questionnaire first. Once finished, participants were given a product perception questionnaire and a booklet of 26 randomly-ordered response forms. Subjects were asked to look over their product perception questionnaire and their response booklet and were told that each response form was numbered to correspond to one of the 26 products in the room. Subjects were instructed to examine each of the products in the order indicated by his or her own unique response sheet booklet and to complete the questionnaire for each product before moving to the next product. For safety reasons, subjects were permitted to handle the products but were not allowed to operate them in any way.

In another phase of the study, four pesticide experts were employed to rate the products on hazardousness. The experts were asked to examine and then rate each of the products on hazardousness using an 11-point Likert-type scale with 0 denoting absence of hazardousness and 11 indicating extreme hazardousness. The experts were allowed to handle, but not operate, the pest control products.

Product Characteristic Coding. Products were also coded on various objective characteristics. This process consisted of assigning numbers to a number of packaging, labeling, and warning characteristics of each

product. The characteristics that were coded included actual price (which was obtained by calculating an average price from those charged by three stores of different chains), product contents (e.g., active ingredients, inert ingredients, and number of ingredients), and packaging characteristics (e.g., colors used, number of colors, pictorials, and number of font/text sizes).

Warning characteristics that were coded included location of warning, signal words used, size of signal words, color of signal words, color of background, color of text, size of text, number of font/text sizes used, centering vs. left-justification of text, paragraph vs. list format of text, pictorials used, locations and characteristics of the various sections of the warning. Those sections included Personal Injury Warning, Storage and Disposal, Directions for Use, Statement of Practical Treatment, and Physical Damage Warning. Other warning related characteristics that were coded included mentioning of degree of safety, illegality of misuse, a list of toxic symptoms, an antidote if ingested, danger to pets, medical attention needed, a poison hotline number, flammability, avoidance of heat, and a telephone number to call manufacturer.

Measures of readability of the panel texts were also obtained. The labels of each product were analyzed using the Macintosh computer program, "Sensible Grammar," developed by Aegis Development, Inc. Each label was analyzed for the number of words, number of sentences, average

length of sentence, percentage of adults in the United States that could read it, level of interest, and academic grade level of reading. This analysis was performed on each individual section of the labels such as directions for use, statement of practical treatment, personal injury warning, physical damage warning, and storage and disposal, on the combination of these sections, and on the label in its entirety.

Results

Product Perceptions. Subject ratings for each product and question were collapsed producing 26 product means for each of the rated questions and these scores (pest-control products) were used as the random variable in the analyses. Initial analyses sought to determine the variables predictive of subjects' reading product warnings. Likelihood of noticing the warnings was the greatest single predictor of reading the front- and back-panel warnings, $r(24) = .986$ and $.989$, p 's $< .0001$ respectively. The correlation matrix suggested that potential significant relationships existed between noticing and reading the warning and the perceived hazardousness of the product, $r(24) = .899$ and $.901$, p 's $< .01$, the potency of the product, $r(24) = .719$ and $.759$, p 's $< .01$, the likelihood of the product causing injury, $r(24) = .796$ and $.795$, p 's $< .01$, and the difficulty involved in using the product, $r(24) = .562$ and $.557$, p 's $< .01$. Together, these correlations indicate that the products which were perceived to be more dangerous had warnings that the subjects were more likely to notice and

read. Subjects reported that they would be more careful with these products (r 's with all of the above variables ranged between .61 to .96).

Interestingly, the noticing and reading variables were strongly related to the warning's attractiveness/appeal, $r(24) = .935$ and $.918$, p 's < .01 and its understandability, $r(24) = .956$ and $.977$, p 's < .01. Also, the hazardousness variable was strongly related to the warning's attractiveness, $r(24) = .742$, $p < .01$, and its understandability, $r(24) = .881$, $p < .01$; that is, the products with the most attractive and understandable warnings were also rated, in general, as more dangerous and more likely to be noticed and read. Further examination of this unusual finding (perceived hazardousness being strongly related to understandability), revealed that subjects had rated those products not containing any warning (pest-control traps) as low in understandability. A second correlational analysis deleting the traps revealed that while hazardousness and understandability were still significantly related, the relationship was not nearly as strong as was first believed, $r(22) = .582$, $p < .05$.

Readability and Product Perceptions. Another cluster of variables predictive of reading and noticing the warning was noted when analyzing the warning panel readability variables. Since it is difficult to separate warnings from instructions, the readability of these components were assessed together. The warning panel consisted of directions for use, warning of personal injury, warning of physical and chemical damage,

statement of practical treatment, and storage and disposal directions. The significant correlations were between reading and noticing the warning and the number of words in the warning, $r(24) = .743$ and $.730$, p 's $< .01$, the number of sentences, $r(24) = .676$ and $.652$, p 's $< .01$, and the grade level of reading, $r(24) = .553$ and $.534$, p 's $< .01$. These three readability variables also correlated highly with the hazardousness variable, $r(24) = .747$, $.702$ and $.487$, p 's $< .05$ respectively. Apparently, the warning panels of the products perceived as most dangerous contained more words, more sentences, and a higher grade level of reading. A significant negative relationship existed between noticing and reading, and the average length of sentence, $r(24) = -.645$ and $-.650$, p 's $< .01$.

The expert ratings of the products' hazardousness validated the novice students' perceptions of the pest-control products' dangerousness, $r(24) = .931$, $p < .001$ (See Appendix C for additional expert rating analyses).

Buying Intentions and Product Perceptions. It was also examined whether the same set of variables strongly related to noticing and reading warnings, as well as perceptions of product dangerousness, were also predictive of consumer purchasing intentions. There was no evidence of a relationship between the subjects' reported buying intentions and noticing the warning, $r(24) = .035$, $p > .05$, reading the warning, $r(24) = .085$, $p > .05$, or understanding the warnings, $r(24) = .036$, $p > .05$. Nor was there any

relationship between the readability variables and the consumer purchasing intentions (r 's with these variables ranged from $-.055$ to $-.267$). Instead, a different set of variables was predictive of purchasing intentions: product familiarity, $r(24) = .953$, $p < .0001$, attractiveness of the packaging $r(24) = .782$, $p < .0001$, confidence in knowing the hazards $r(24) = .614$, $p < .001$, and potency of the product $r(24) = .529$, $p < .01$ (See Appendix D for complete correlation matrices).

Discussion

A warning is useless if the consumer fails to notice or read it. The present results suggest that warnings that are noticed and read appear on the products that the subjects and experts judged as more dangerous. In other words, the pest-control products that effectively convey their hazardousness in their warning labels are also the ones that possess the greatest likelihood of having their warnings noticed and read. This conclusion was reinforced by the indication of a strong relationship between noticing and reading warnings and the various danger variables which include potency/strength of the product, likelihood of injury due to the product, and difficulty in using the product. Again, the products appearing most dangerous seem to have their warnings read. These findings were consistent with those of Godfrey et al. (1983) and of Wogalter et al. (1986) who also reported a strong relationship between perceived hazard and reading labels. These findings conflict, however,

with Wright et al. (1982) who failed to find any relationship between attitudes toward product safety and reading instructions.

The warnings on the products perceived as most hazardous were also judged to be the most understandable and the most esthetically appealing. Upon reexamination of the data (after four of the products without warnings had been deleted), it was discovered that subjects' judgments of the understandability of products containing no warning had greatly altered the correlation between understandability of the warning and perceived hazardousness of the product. The relationship was greatly reduced, indicating only a hint of a relationship between hazardousness and understandability. Knowing this, manufacturers may want to concentrate on the attractiveness of their warning labels. Increasing this variable (making the labels more esthetically appealing) may be accompanied with an increase in the perceived hazardousness which apparently is predictive of reading and noticing the warnings.

In the correlation analyses of the readability variables and the noticing and reading variables, it was found that the warning panels containing a greater number of words and sentences, and a higher grade level of reading were more likely to be noticed and read. This could be related to the fact that warning panels with more words and sentences, and more difficult reading material were also perceived as more dangerous. As has already been discovered, perceived hazardousness and

noticing/reading warnings are strongly related.

Analysis of the readability also found that as the average length of the sentences in the warning decreased, the likelihood of noticing and reading increased. Apparently, the use of shorter sentences may increase the possibility of having a warning noticed and read. Manufacturers, again, may want to concentrate on the readability of their warning panels with hopes of increasing the likelihood of consumers noticing and reading their labels.

The importance of discovering these variables predictive of noticing and reading warnings lies in the hazardous nature of the products when misused. Accidents due to ignorance of proper use, proper storage and disposal, personal injury hazards, practical treatment, and physical and chemical hazards can be greatly reduced should manufacturers find a way to increase consumers' reading of warnings. The variables above are all indicative of the likelihood of this, and therefore should be taken into consideration when labeling products.

When purchasing intentions were examined, there was no evidence of a relationship between buying intentions and the noticing, reading, or understanding of warnings. Nor was there a relationship between any of the readability variables and buying intentions. In other words, should manufacturers try to manipulate these variables predictive of noticing and reading warnings there should be no destructive effect on the buying

intentions of their consumers. This finding should eliminate manufacturers' fears that creating a label that effectively conveys the dangerousness of the product will consequently reduce sales.

To increase sales, manufacturers need to examine another set of variables all together. Buying intentions were predicted by a cluster of variables that included familiarity, general attractiveness of the packaging, and confidence in knowing the hazards. Potency of the product correlated with both buying intentions and reading and noticing the warnings. Apparently, consumers intend to buy pest-control products that they are most familiar with, that are packaged most attractively, and that they perceive as being most potent. It is not a surprise that consumers want the most for their money in terms of potency. Nor is it a surprise that they will buy the product that they have heard of or seen before, and that is the nicest to look at.

The relative independence of buying intentions and perceived hazardousness, likelihood of reading, likelihood of noticing, and understandability of warnings suggests that manufacturers can place appropriate warnings on their products and not be concerned with lowered consumer buying intentions. Instead, they should concern themselves with the high rate of pesticide poisonings and accidents due to misuse, which hopefully can be reduced given an effective warning label.

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Appendices

Appendix A: Demographics Questionnaire and Product Perception
Questionnaire.

Appendix B: Coded objective data of the products, coded readability, and
subjects' mean ratings of the products.

Appendix C: Correlations of expert ratings of hazardousness and other
pesticide data.

Appendix D: Complete correlation matrices.

Appendix A

General Information

Age: _____ Sex: _____ male _____ female

Residence of past five years (please most current residence first):

City/State	from (year)	to (year)	Location (Circle one)	Type of residence (Circle one)
_____	_____	- _____	urban, suburban, rural	multi-family, single-family
_____	_____	- _____	urban, suburban, rural	multi-family, single-family
_____	_____	- _____	urban, suburban, rural	multi-family, single-family

A. Have you or a member of your household used a **fogger or fumigator** in the past five years? _____

If yes, how many times? _____

What pests were you trying to get rid of by using the fogger or fumigator?

B. Have you or a member of your household used an **pesticide trap** in the past five years? _____

If yes, how many times? _____

What pests were you trying to get rid of by using the insect trap?

C. Have you or a member of your household used a **pesticide spray** in the past five years? _____

If yes, how many times? _____

What pests were you trying to get rid of by using the insect spray?

DIRECTIONS

You will be given several answer sheets, and this single questionnaire. Do not write on this questionnaire, for it is the only one you will use for all of the answer sheets. You are to examine each product in the order indicated by the packet of answer sheets. Upon examining each product, complete the questionnaire at that station and be sure all questions have been answered (again, you are to write only on the answer sheet) before continuing to the next product. When all answer sheets have been completed, turn them in to the experimenter along with your questionnaire.

1. **How likely is it that you would notice the warning on the front panel of the package?**

0 1 2 3 4 5 6 7 8
never unlikely likely very likely extremely likely

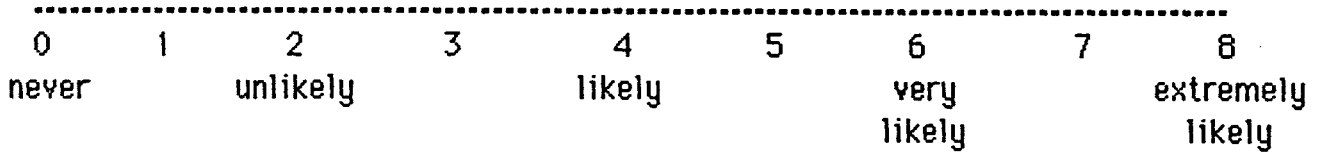
2. **How likely is it that you would notice the warning on the back (or side) panel of the package?**

0 1 2 3 4 5 6 7 8
never unlikely likely very likely extremely likely

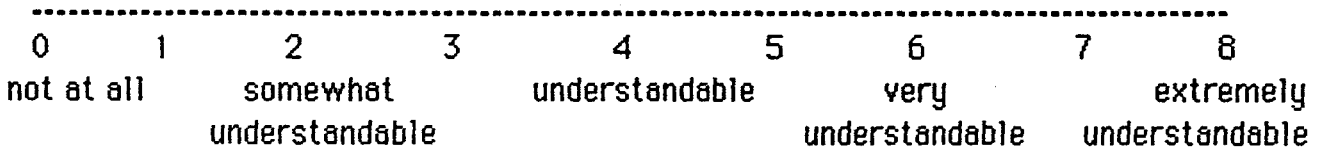
3. **How likely is it that you would read the warning on the front panel of the package?**

0 1 2 3 4 5 6 7 8
never unlikely likely very likely extremely likely

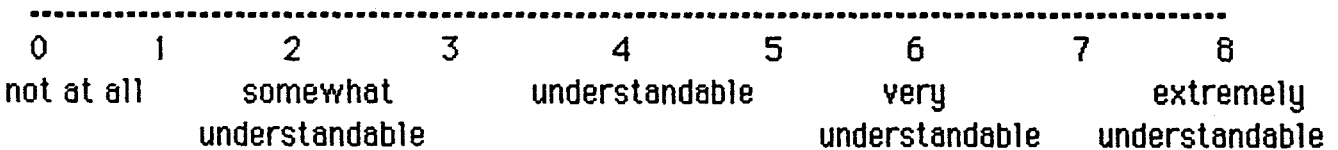
4. How likely is it that you would read the warning on the back (or side) panel of the package?



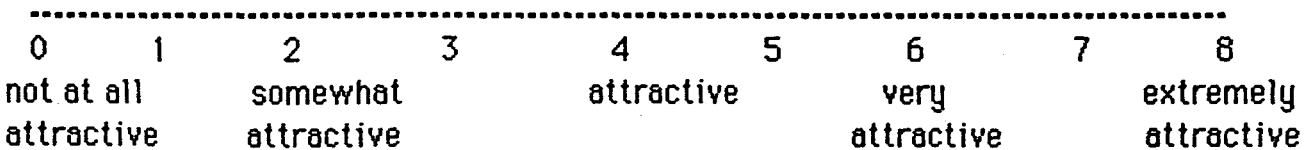
5. How understandable is the warning on the front panel of the package?



6. How understandable is the warning on the back (or side) panel of the package?



7. How attractive (appealing) is the warning label on the front panel of the package?



8. How attractive (appealing) is the warning label on the back (or side) panel of the package?

0 1 2 3 4 5 6 7 8
not at all somewhat attractive very extremely
attractive attractive attractive attractive attractive

9. How familiar are you with this product?

0 1 2 3 4 5 6 7 8
not at all somewhat familiar very extremely
familiar familiar familiar familiar familiar

10. How attractive (appealing) is the packaging of this product in general?

0 1 2 3 4 5 6 7 8
not at all somewhat attractive very extremely
attractive attractive attractive attractive attractive

11. How strong (potent) do you think the product is?

0 1 2 3 4 5 6 7 8
not at all somewhat strong very extremely
strong strong strong strong strong

12. How hazardous do you think the product is?

0 1 2 3 4 5 6 7 8
not at all somewhat hazardous very extremely
hazardous hazardous hazardous hazardous hazardous

13. How confident are you in knowing all the hazards related to this product?

0 1 2 3 4 5 6 7 8
not at all somewhat confident very extremely
confident confident confident confident confident

14. How careful would you be when using this product?

0 1 2 3 4 5 6 7 8
not at all somewhat careful very extremely
careful careful careful careful careful

15. How likely are you to be injured in any way while using this product?

0 1 2 3 4 5 6 7 8
never unlikely likely very extremely
likely likely likely likely

16. How difficult would it be to use this product?

0 1 2 3 4 5 6 7 8
not at all somewhat difficult very extremely
difficult difficult difficult difficult difficult

17. How likely are you to buy this product?

.....

0	1	2	3	4	5	6	7	8
never		unlikely		likely		very likely		extremely likely

18. Please estimate the cost of the product. _____

19. Please estimate how long-lasting the effects of the product
are. ____ wks.

Appendix B

	Product Name	Product #	Product Type	Manufacturer	Manufacturer Code
1	Raid Ant & Roa...	1	3	S C. Johnson	1
2	No-Roach	2	3	Gaston Johnston	8
3	TAT	3	3	Walco-Linck Co.	4
4	Black Flag	4	3	Boyle-Midway	5
5	Hot Shot	5	3	Kenco Chemical	7
6	Combat	6	3	American Cyn...	9
7	Real Kill	7	3	Realex	2
8	D-con	8	3	D-Con Co.	4
9	Black Flag	9	2	boyle-midway	5
10	D-Con	10	2	D-Con Co. Inc.	6
11	Raid	11	2	S. C. Johnson	1
12	Combat	12	2	American Cyn...	9
13	Hobbs	13	5	Hobs Laborato...	9
14	Raid	14	5	Johnson Wax	3
15	Raid	15	4	Johnson Wax	3
16	Real Kill	16	4	Realex	2
17	No Roach	17	4	Johnston's	8
18	Hot Shot	18	4	Kenco Chemical	7
19	Rid-a-Bug	19	4	Kenco Chemic...	7
20	Black Flag	20	4	Boyle Midway...	5
21	TNT	21	4	TNT Chemicals	6
22	D-Con	22	4	D-con company	4
23	Enoz	23	1	Willert Home ...	9
24	Strike	24	1	Zoecon Corp.	9
25	D-Con	25	1	D-con Company	4
26	Raid	26	1	Johnson Wax	3

	Net Weight (oz)	Average Price	Ingred. List 0=no 1=yes	% inert ingred.
1	11.00	2.18	1	99.135
2	12.00	3.19	1	82.054
3	11.00	1.89	1	10.605
4	13.70	2.51	1	16.270
5	16.00	2.17	1	99.046
6	11.00	2.37	1	26.055
7	11.00	2.04	1	40.000
8	11.00	2.04	1	26.055
9	1.06	2.04	1	99.500
10	.97	2.04	1	99.500
11	1.00	3.27	1	99.500
12	.64	3.72	1	98.350
13	4.00	1.19	1	0
14	.35	3.89	1	87.400
15	6.00	3.00	1	85.000
16	6.00	3.99	1	95.116
17	7.50	4.19	1	85.042
18	5.50	4.46	1	95.116
19	7.50	2.89	1	98.500
20	6.00	3.50	1	85.000
21	7.50	3.49	1	98.522
22	0	3.46	1	85.250
23	0	1.39	0	100.000
24	0	.92	0	100.000
25	0	1.04	1	100.000
26	•	1.18	0	100.000

	% petroleum distillates	# of Incred.	Duration of Effect (days)	#of pests effective
1	99.135	4	28	5
2	16.732	7	•	11
3	88.565	6	•	16
4	83.030	5	15	22
5	0	5	•	9
6	73.245	3	•	6
7	59.030	4	•	16
8	73.245	5	15	19
9	0	2	90	1
10	0	1	90	1
11	0	2	90	1
12	0	2	90	1
13	0	1	•	3
14	0	3	•	9
15	11.830	4	•	16
16	4.000	4	28	15
17	14.353	4	•	17
18	4.000	5	28	15
19	0	3	•	11
20	14.400	3	•	14
21	0	4	•	5
22	13.454	7	•	17
23	0	1	•	1
24	0	1	•	2
25	0	1	•	2
26	0	1	•	3

	Need to leave	Exterior container	Diff colors on box	Diff Warnings/Front
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	1	0	0
10	0	0	0	0
11	0	1	0	0
12	0	1	0	0
13	1	0	•	0
14	1	0	•	0
15	1	1	0	0
16	1	1	0	0
17	1	1	0	0
18	1	1	0	0
19	1	1	1	0
20	1	1	0	0
21	1	1	1	0
22	1	1	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0

	Diff Warnings/Back	Diff Warning Place	Colors-1st	Colors/2nd	Colors/3rd	Colors/4th
1	0	0	1	3	8	0
2	0	0	3	8	1	0
3	0	0	1	8	3	11
4	0	0	1	0	8	3
5	0	0	4	3	1	0
6	0	0	0	1	8	5
7	0	0	8	1	3	0
8	0	0	1	0	8	*
9	0	0	8	0	3	1
10	0	0	1	8	5	0
11	0	0	0	1	8	3
12	0	0	0	8	2	3
13	0	0	8	3	1	0
14	0	0	5	0	1	3
15	0	0	7	2	3	0
16	0	1	2	0	8	1
17	0	1	3	5	0	1
18	0	1	2	0	8	3
19	0	0	8	0	1	*
20	0	0	4	8	0	3
21	0	1	2	5	8	0
22	0	0	2	0	8	*
23	0	0	5	1	3	8
24	0	0	3	1	7	9
25	0	0	3	1	8	9
26	0	0	1	9	0	3

	# of colors	# Font/Text Sizes	# of pictorials	BACK COLOR 1ST	BACK COLOR 2ND
1	4	8	2	0	8
2	5	7	4	3	8
3	4	10	0	0	8
4	5	8	0	0	8
5	5	11	1	4	0
6	4	8	2	0	8
7	4	7	1	8	0
8	3	11	2	1	0
9	5	7	2	0	8
10	4	8	1	0	8
11	4	7	2	0	8
12	4	8	2	0	8
13	4	4	1	0	8
14	4	7	1	5	0
15	5	6	1	2	0
16	5	8	2	2	8
17	4	6	0	3	5
18	5	8	1	2	8
19	3	4	0	0	8
20	4	8	1	0	8
21	4	8	0	2	8
22	3	6	0	2	0
23	6	7	6	5	1
24	4	3	1	3	1
25	4	4	2	3	8
26	5	5	1	0	8

	BACK COLOR 3RD	BACK COLOR 4TH	NUMBER OF COLORS BACK	NUMBER OF FONTS ON BACK
1	1	3	4	4
2	1	0	5	6
3	1	•	3	8
4	1	3	4	5
5	3	•	3	3
6	•	•	2	4
7	1	•	3	4
8	8	•	3	4
9	3	1	4	8
10	1	•	3	5
11	3	1	4	6
12	2	•	3	6
13	3	1	4	4
14	3	1	4	2
15	0	3	5	5
16	0	•	3	2
17	1	0	4	3
18	•	•	2	2
19	1	•	3	2
20	4	•	3	3
21	•	•	2	3
22	8	•	3	2
23	3	0	6	8
24	7	9	4	5
25	1	•	3	4
26	3	1	4	7

	NUMBER OF PICTORIALS BACK	Signal Word Pre...	The word	Level of Word	Experi Level
1	0	1	CAUTION	3	•
2	0	1	caution	•	•
3	0	1	caution	•	•
4	5	1	caution	•	•
5	0	1	caution	•	•
6	0	1	caution	•	•
7	0	1	caution	•	•
8	0	1	caution	•	•
9	2	1	CAUTION	•	•
10	2	1	caution	•	•
11	3	1	caution	•	•
12	3	1	caution	•	•
13	0	1	caution	•	•
14	0	1	warning	•	•
15	2	1	caution	•	•
16	0	1	caution	•	•
17	0	1	caution	•	•
18	0	1	caution	•	•
19	0	1	caution	•	•
20	0	1	caution	•	•
21	0	1	caution	•	•
22	4	1	caution	•	•
23	7	0		•	•
24	0	0		•	•
25	2	0		•	•
26	3	0		•	•

	Warning pictorial	Location	Color/sig word	Color/warning t...	Color Background
1	0	3	8	8	1
2	0	3	8	8	3
3	0	3	8	8	1
4	0	3	8	8	1
5	0	3	8	8	4
6	0	3	8	8	0
7	0	3	1	1	8
8	0	3	8	8	1
9	0	2	0	0	8
10	0	3	8	8	1
11	0	3	8	8	0
12	0	3	8	8	0
13	0	3	0	0	8
14	0	3	0	0	5
15	0	3	2	2	7
16	0	3	8	8	2
17	0	3	5	5	3
18	0	3	8	8	2
19	0	3	0	0	8
20	0	3	8	8	4
21	0	3	8	8	2
22	0	3	8	8	2
23	0	•	•	•	•
24	0	•	•	•	•
25	0	•	•	•	•
26	0	•	•	•	•

	Sig word color diff warn text	Sig word color diff Other text
1	0	0
2	0	0
3	0	1
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	1
10	0	1
11	0	0
12	0	0
13	0	1
14	0	0
15	0	0
16	0	0
17	0	0
18	0	1
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0

	Color warn text diff Other text	Sig word larger front text	Sig word larger than Warn t...
1	1	1	1
2	0	1	1
3	1	0	1
4	0	1	1
5	0	0	1
6	0	1	1
7	0	1	1
8	0	1	1
9	1	0	1
10	1	0	1
11	0	0	1
12	0	0	1
13	1	0	1
14	0	1	1
15	0	0	1
16	0	1	1
17	0	1	1
18	1	0	1
19	0	1	1
20	0	1	1
21	0	0	1
22	0	1	1
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0

	Warning separate text	Keep out of reach from...	Ref to see back panel
1	0	1	1
2	1	1	1
3	0	1	1
4	1	1	1
5	0	1	1
6	0	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	0	1	1
11	1	1	0
12	0	1	1
13	1	1	1
14	1	1	1
15	0	1	1
16	0	1	1
17	0	1	1
18	0	1	1
19	0	1	1
20	0	1	1
21	0	1	1
22	0	1	1
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0

	Other warning text	# of primary panels	Warning present	See warnings viewing directions
1	0	2	1	1
2	0	2	1	0
3	0	1	1	1
4	0	2	1	1
5	0	1	1	1
6	0	2	1	1
7	0	2	1	1
8	0	2	1	1
9	0	2	1	1
10	0	2	1	1
11	1	2	0	0
12	0	2	1	1
13	0	2	1	0
14	0	2	1	0
15	0	3	1	1
16	0	1	1	1
17	0	2	1	0
18	0	1	1	1
19	0	2	1	0
20	0	2	1	1
21	0	2	1	1
22	0	2	1	1
23	0	1	0	0
24	0	1	1	1
25	0	1	1	1
26	0	2	1	1

	Personal Injury before Directions	Locat. of Personal Injury Warn
1	0	2
2	0	2
3	0	2
4	1	1
5	1	1
6	0	2
7	0	2
8	0	2
9	0	3
10	0	3
11	0	4
12	0	3
13	0	1
14	0	2
15	0	1
16	1	1
17	0	1
18	1	1
19	0	1
20	0	2
21	0	2
22	0	2
23	0	4
24	0	3
25	0	2
26	0	2

	Location Physical Damage Warn	Location of Storage & Dispo...	Location of Directions
1	3	2	1
2	2	1	2
3	3	3	1
4	2	2	3
5	2	3	2
6	3	3	1
7	3	3	1
8	2	3	1
9	4	1	2
10	4	3	2
11	4	3	2
12	4	3	1
13	4	3	2
14	1	3	1
15	2	3	1
16	2	2	3
17	2	3	1
18	2	2	3
19	2	1	1
20	3	3	1
21	3	1	1
22	3	3	1
23	4	4	4
24	4	4	4
25	4	4	4
26	4	4	4

	Location of Practical Tr...	Signal Word (1)	Signal Word (1) Level	Signal Word (1) Exp Le...
1	3	1	•	•
2	3	1	•	•
3	2	1	•	•
4	1	1	•	•
5	1	1	•	•
6	2	1	•	•
7	3	1	•	•
8	3	1	•	•
9	4	1	•	•
10	3	1	•	•
11	4	•	•	•
12	3	1	•	•
13	1	1	•	•
14	2	4	•	•
15	2	1	•	•
16	2	1	•	•
17	4	4	•	•
18	2	1	•	•
19	3	1	•	•
20	4	1	•	•
21	2	1	•	•
22	2	1	•	•
23	4	•	•	•
24	4	5	•	•
25	4	5	•	•
26	4	5	•	•

	Signal Word (2)	Signal Word (2) Level	Signal Word (2) Exp Level	Signal Word ...
1	2	•	•	3
2	3	•	•	•
3	6	•	•	•
4	2	•	•	3
5	•	•	•	•
6	•	•	•	•
7	•	•	•	•
8	2	•	•	3
9	2	•	•	3
10	•	•	•	•
11	•	•	•	•
12	2	•	•	3
13	•	•	•	•
14	•	•	•	•
15	•	•	•	•
16	•	•	•	•
17	1	•	•	•
18	•	•	•	•
19	•	•	•	•
20	•	•	•	•
21	•	•	•	•
22	•	•	•	•
23	•	•	•	•
24	•	•	•	•
25	•	•	•	•
26	•	•	•	•

	Signal Word (3) Level	Signal Word (3) Exp Level	# of Signal Words	Warning Pictorials Pres
1	•	•	3	0
2	•	•	2	0
3	•	•	2	0
4	•	•	3	0
5	•	•	1	0
6	•	•	1	0
7	•	•	1	0
8	•	•	3	0
9	•	•	3	0
10	•	•	1	0
11	•	•	0	0
12	•	•	3	0
13	•	•	1	0
14	•	•	1	0
15	•	•	1	0
16	•	•	1	0
17	•	•	2	0
18	•	•	1	0
19	•	•	1	0
20	•	•	1	0
21	•	•	1	0
22	•	•	1	0
23	•	•	0	•
24	•	•	1	0
25	•	•	1	0
26	•	•	1	0

	Sig Word in CAPITALS	Sig Word Larger other t...	PIJ - warn present	PIJ-separate head...
1	0	1	1	1
2	1	1	1	1
3	1	1	1	0
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	0
8	1	1	1	1
9	1	1	1	1
10	1	0	1	1
11	0	0	0	0
12	1	1	1	1
13	1	0	1	0
14	1	1	1	1
15	1	0	1	1
16	1	0	1	1
17	1	1	1	1
18	1	1	1	1
19	1	0	1	1
20	1	1	1	1
21	1	1	1	1
22	1	0	1	1
23	•	•	0	0
24	0	1	1	1
25	1	1	1	0
26	1	0	1	1

	PIJ-separate subh...	PIJ-head diff co...	PIJ-heading larger	PIJ-color diff	PIJ-text lar...
1	0	0	1	0	0
2	1	1	1	0	0
3	1	0	0	0	0
4	0	1	1	0	0
5	0	0	1	0	0
6	0	0	1	0	0
7	0	0	0	0	0
8	0	0	1	0	0
9	0	0	1	0	1
10	0	0	1	0	0
11	0	0	0	0	0
12	0	0	1	0	0
13	0	0	0	1	0
14	0	1	1	0	0
15	0	0	1	0	0
16	0	0	1	0	0
17	0	0	0	0	0
18	0	0	1	0	0
19	0	0	1	0	0
20	0	1	1	0	0
21	0	0	1	0	0
22	0	0	1	0	0
23	0	0	0	0	0
24	0	0	1	0	0
25	0	1	0	0	1
26	0	0	1	0	0

	PIJ-centered/left-j...	PIJ-para/list	PIJ- # Font/text si...	PDW-warn present
1	0	0	1	1
2	0	0	2	1
3	0	0	2	1
4	0	0	2	1
5	1	0	1	1
6	1	0	1	1
7	1	0	1	1
8	0	0	1	1
9	1	1	1	0
10	1	0	1	0
11	•	•	0	0
12	1	0	2	0
13	1	0	1	0
14	1	0	1	1
15	1	0	1	1
16	1	0	1	1
17	1	0	1	1
18	1	0	1	1
19	1	0	1	1
20	1	0	1	1
21	1	0	1	1
22	1	0	1	1
23	•	•	0	0
24	1	0	1	0
25	0	1	0	0
26	1	0	1	0

	PDW-heading larger	PDW-text color diff	PDW-text larger	PDW-center/left-|...
1	1	0	0	0
2	1	0	0	0
3	0	0	0	0
4	1	0	0	0
5	1	0	0	1
6	1	0	0	1
7	1	0	0	1
8	1	0	0	0
9	0	0	0	•
10	0	0	0	•
11	0	0	0	•
12	0	0	0	•
13	0	0	0	•
14	1	0	0	1
15	1	0	0	1
16	1	0	0	1
17	1	0	0	1
18	1	0	0	1
19	1	0	0	1
20	1	0	0	1
21	1	0	0	1
22	1	0	0	1
23	0	0	0	•
24	0	0	0	•
25	0	0	0	•
26	0	0	0	•

	PDW-para/list	PDW-# font/text sizes	SD-warning pres...	SD-separate heading
1	0	2	1	1
2	0	1	1	1
3	0	1	1	1
4	0	2	1	1
5	0	1	1	1
6	0	1	1	1
7	0	1	1	1
8	0	1	1	1
9	•	0	1	1
10	•	0	1	1
11	•	0	1	1
12	•	0	1	1
13	•	0	1	1
14	0	1	1	1
15	0	1	1	1
16	0	1	1	1
17	0	1	1	1
18	0	1	1	1
19	0	1	1	1
20	0	1	1	1
21	0	1	1	1
22	0	1	1	1
23	•	0	0	0
24	•	0	0	0
25	•	0	0	0
26	•	0	0	0

	SD-separate subheads	SD-heading diff color	SD-heading la...	SD-text color ...
1	1	0	1	0
2	1	0	1	0
3	0	1	1	1
4	1	1	1	0
5	1	0	1	0
6	0	0	1	0
7	1	0	1	0
8	1	0	1	0
9	1	1	1	0
10	0	0	1	0
11	1	0	1	0
12	0	0	1	0
13	0	1	1	0
14	0	1	1	0
15	0	0	1	0
16	0	0	1	0
17	1	0	1	0
18	0	0	1	0
19	1	1	1	0
20	0	1	1	0
21	0	0	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0

	SD-text larger	SD-center/left-j...	SD-para/list	SD-# font/text sizes	DFU-warning present
1	0	0	0	2	1
2	0	1	1	2	1
3	0	0	0	1	1
4	0	1	1	2	1
5	0	1	1	2	1
6	0	1	0	2	1
7	0	1	0	2	1
8	0	0	0	2	1
9	1	1	1	2	1
10	0	1	0	1	1
11	0	1	1	2	1
12	0	1	1	1	1
13	0	1	0	1	1
14	0	1	0	1	1
15	0	1	0	1	1
16	0	1	0	1	1
17	0	1	1	1	1
18	0	1	0	1	1
19	0	1	0	1	1
20	0	1	0	1	1
21	0	1	0	1	1
22	0	1	0	1	1
23	0	•	•	0	1
24	0	•	•	0	1
25	0	•	•	0	1
26	0	•	•	0	1

	DFU-separate head...	DFU-separate subheads	DFU-heading diff color	DFU-heading larger
1	1	1	0	i
2	1	1	0	i
3	1	1	0	i
4	1	1	1	1
5	1	1	1	1
6	1	1	0	1
7	1	1	0	1
8	1	1	0	i
9	1	0	0	i
10	1	0	0	i
11	1	1	0	1
12	1	1	0	1
13	1	0	1	1
14	1	1	1	1
15	1	0	0	1
16	1	1	0	i
17	1	0	0	i
18	1	0	0	1
19	1	0	1	1
20	1	0	1	1
21	1	0	0	1
22	1	0	0	1
23	1	0	1	1
24	1	0	0	1
25	1	0	0	i
26	1	0	0	i

	DFU-text color diff	DFU-text lar...	DFU-center/left-just	DFU-para/list
1	0	0	0	0
2	0	0	0	0
3	0	0	0	1
4	1	1	1	1
5	0	0	1	0
6	0	0	1	0
7	0	0	1	0
8	0	0	0	1
9	0	0	1	1
10	0	0	1	1
11	0	0	0	1
12	0	1	1	1
13	0	0	1	0
14	0	0	1	1
15	0	0	1	1
16	0	0	1	0
17	0	0	1	0
18	0	0	1	0
19	0	0	1	0
20	0	0	1	0
21	0	0	1	0
22	0	0	1	0
23	0	0	1	0
24	0	0	1	1
25	0	0	1	1
26	0	0	1	0

	DFU-# font/text sizes	SPT-warning present	SPT-separate heading	SPT-separate subheads
1	2	1	1	1
2	3	1	1	1
3	2	1	0	1
4	2	1	1	1
5	2	1	1	1
6	2	1	1	1
7	2	1	1	1
8	2	1	1	1
9	1	0	0	0
10	1	1	1	1
11	2	0	0	0
12	2	1	1	0
13	1	1	0	0
14	1	1	1	0
15	1	1	1	1
16	2	1	1	1
17	1	1	0	0
18	2	1	1	1
19	1	1	1	1
20	2	1	0	0
21	2	1	1	1
22	1	1	1	1
23	1	0	0	0
24	1	0	0	0
25	1	0	0	0
26	1	0	0	0

	SPT-heading diff ...	SPT-heading lar...	SPT-text color d...	SPT-text lar...
1	0	1	0	0
2	1	1	1	0
3	0	0	0	0
4	1	1	0	0
5	0	1	0	0
6	0	1	0	0
7	0	1	0	0
8	0	1	0	0
9	0	0	0	0
10	0	1	0	0
11	0	0	0	0
12	1	1	0	0
13	0	0	1	0
14	1	1	0	0
15	0	1	0	0
16	0	1	0	0
17	0	0	0	0
18	0	1	0	0
19	0	1	0	0
20	0	0	0	0
21	0	1	0	0
22	0	1	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0

	SPT-centered/left-j...	SPT-para/list	SPT-# font/text sizes	Labeling prod is s...
1	0	0	2	0
2	0	0	2	0
3	0	0	2	0
4	1	1	2	0
5	1	1	2	0
6	1	0	1	0
7	1	1	1	1
8	0	1	2	0
9	•	•	0	0
10	1	0	2	1
11	•	•	0	0
12	1	0	1	0
13	1	0	1	0
14	1	0	1	0
15	1	1	1	0
16	1	1	1	0
17	1	0	1	0
18	1	1	1	0
19	1	0	1	0
20	1	0	1	0
21	1	1	1	0
22	1	0	1	0
23	•	•	0	1
24	•	•	0	1
25	•	•	0	1
26	•	•	0	1

	Lableing safe-used as direc...	Label-misuse against Fed Law	Poison/Toxic Sympto..
1	0	1	0
2	0	1	0
3	0	1	0
4	0	1	1
5	0	1	0
6	0	1	0
7	0	0	1
8	0	1	0
9	0	1	0
10	1	1	0
11	0	1	0
12	0	1	0
13	0	0	0
14	0	0	0
15	0	1	0
16	0	1	0
17	0	1	0
18	0	1	0
19	0	1	1
20	0	1	0
21	0	1	0
22	0	1	0
23	1	0	0
24	1	0	0
25	1	0	0
26	1	0	0

	To do w/personal co...	Separate heads for pers cont...	Antidote listed	Danger to pets
1	1	1	1	1
2	1	1	1	1
3	1	0	1	1
4	1	1	1	1
5	1	1	1	0
6	1	1	1	1
7	0	1	1	1
8	1	1	1	1
9	0	0	0	0
10	1	1	1	0
11	0	0	0	1
12	0	0	0	0
13	0	0	0	1
14	0	0	0	1
15	0	0	0	1
16	1	1	1	1
17	1	0	0	1
18	1	1	1	1
19	1	1	0	1
20	1	0	0	1
21	1	1	0	1
22	1	1	1	1
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0

	Do not induce vomiti...	Medical Attention sugges...	Call Physician	Note to Physici...
1	1	1	1	1
2	0	1	1	1
3	0	1	0	0
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	0	1	1	1
9	0	0	0	0
10	1	1	1	1
11	0	0	0	0
12	1	1	0	0
13	0	1	1	0
14	0	1	0	0
15	1	1	0	1
16	0	1	1	1
17	0	1	0	0
18	0	1	1	1
19	0	0	1	0
20	0	1	0	0
21	0	0	1	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0

	Call Poison Hotline	Flamma...	Avoid Heat	Contents under pressure	Phone # to call man...
1	1	1	1	1	1
2	0	0	1	1	0
3	0	1	1	1	0
4	1	1	1	1	0
5	0	1	1	1	0
6	0	1	1	1	1
7	1	0	1	1	0
8	1	0	1	1	0
9	0	0	1	0	0
10	1	0	1	0	0
11	0	0	0	0	1
12	0	0	0	0	1
13	0	1	1	0	0
14	0	0	0	0	1
15	0	1	1	1	1
16	1	1	1	1	0
17	0	1	1	1	0
18	1	1	1	1	0
19	0	1	1	1	0
20	0	1	1	1	0
21	0	1	1	1	0
22	0	1	1	1	0
23	0	0	0	0	0
24	0	0	0	0	0
25	0	0	0	0	0
26	0	0	0	0	1

	Front-# words	Front-# sentences	Front-mean length se...	Readability Index
1	43	16	2	graduate
2	66	25	2	graduate
3	44	18	2	7th
4	41	10	4	graduate
5	50	13	5	graduate
6	48	14	3	grad
7	62	20	3	graduate
8	62	20	3	grad
9	72	18	4	8th grade
10	58	18	15	8th grade
11	63	13	4	7th
12	55	11	5	college
13	24	11	2	9th
14	49	16	3	college
15	56	11	5	college
16	83	21	3	12th
17	90	27	3	college
18	64	23	2	college
19	47	22	2	college
20	67	13	5	graduate
21	44	13	3	6th
22	90	20	4	college
23	0	0	0	
24	0	0	0	
25	0	0	0	
26	0	0	0	

	Front-% reading level	Front-interest level	PIJ-# words	PIJ-# sentences
1	30	mildly interesting	89	11
2	30	mildly	159	17
3	72	mildly	136	18
4	22	mildly	80	11
5	19	dull	66	8
6	30	dull	123	13
7	29	mildly	28	6
8	29	mildly interesting	28	6
9	66	interesting	16	2
10	70	mildly interesting	12	3
11	71	mildly	0	0
12	35	dull	11	3
13	62	mildly	71	11
14	34	dull	66	12
15	32	dull	94	11
16	53	mildly	108	13
17	31	dull	105	15
18	44	dull	108	13
19	36	dull	101	14
20	24	dull	86	11
21	88	mildly	29	7
22	45	dull	72	11
23	•		0	0
24	•		27	2
25	•		27	2
26	•		30	2

	PIJ-mean length s...	PIJ-readability in...	PIJ-% reading le...	PIJ-interest level
1	8	11th	56	interesting
2	8	college	43	dull
3	7	9th	61	mildly
4	7	college	44	interesting
5	8	college	50	dull
6	9	college	48	mildly
7	4	12th	53	mildly
8	4	12th	53	mildly
9	8	graduate	27	interesting
10	4	college	36	none
11	0		0	
12	3	college	38	highly interest...
13	6	college	46	dull
14	5	college	45	dull
15	8	12th	51	mildly
16	8	12th	53	mildly
17	7	college	47	dull
18	8	12th	53	mildly
19	7	11th	56	mildly
20	7	college	49	dull
21	4	college	32	mildly
22	6	college	40	dull
23	0		0	
24	13	7th	75	interesting
25	13	7th	75	interesting
26	15	8th	67	interesting

	PDW-% reading level	PDW-interest level	SD-# words	SD-# senten...
1	44	none	29	4
2	53	none	29	4
3	48	none	42	4
4	45	none	34	4
5	53	none	29	4
6	56	none	42	5
7	47	none	36	5
8	47	none	36	5
9	•		18	2
10	•		24	2
11	•		20	3
12	•		1	8
13	•		22	3
14	56	none	26	3
15	52	none	27	3
16	48	none	25	3
17	62	none	29	4
18	51	none	26	4
19	53	none	26	4
20	53	none	15	4
21	55	none	41	5
22	47	none	23	3
23	•		0	0
24	•		0	0
25	•		0	0
26	•		0	0

	SD-mean length sent.	SD-readability index	SD-% reading level	SD-interest level
1	7	12th	54	interesting
2	7	8th	67	none
3	10	9th	63	none
4	8	9th	61	none
5	7	9th	64	none
6	8	9th	62	none
7	7	9th	63	none
8	7	9th	63	none
9	9	7th grade	76	interesting
10	12	graduate	35	interesting
11	6	college	42	interesting
12	8	8th grade	67	none
13	7	8th	68	none
14	8	college	34	interesting
15	9	9th	61	interesting
16	8	9th	61	none
17	7	8th	67	none
18	6	12th	52	none
19	6	9th	63	none
20	3	college	47	none
21	8	8th	68	none
22	7	college	34	interesting
23	0		•	
24	0		•	
25	0		•	
26	0		•	

	DFU-# words	DFU-# sentences	DFU-mean length s...	DFU-readability index
1	119	14	8	college
2	224	18	12	college
3	199	31	6	9th
4	207	38	5	8th
5	124	9	13	college
6	128	12	10	12th
7	285	46	6	8th
8	285	46	6	8th
9	136	11	12	9th grade
10	151	11	13	9th
11	199	13	15	10th
12	241	17	14	9th
13	118	10	11	11th
14	160	19	8	10th
15	212	22	9	7th
16	142	13	10	8th
17	254	22	11	9th
18	217	20	10	9th
19	178	19	9	8th
20	219	19	11	11th
21	175	19	9	8th
22	185	19	9	8th
23	73	6	12	10th
24	69	6	11	7th
25	92	9	10	11th
26	96	10	9	10th

	DFU-% reading level	DFU-interest level	SPT-# words	SPT-# sentences
1	42	none	66	8
2	47	none	85	10
3	62	none	47	6
4	66	dull	68	9
5	43	none	65	9
6	54	none	137	17
7	69	none	83	11
8	69	none	83	11
9	65	mildly interesting	0	0
10	61	mildly	71	9
11	60	interesting	0	0
12	61	interesting	41	4
13	56	none	19	4
14	60	none	47	5
15	74	none	20	3
16	70	dull	103	12
17	63	none	22	3
18	65	none	103	12
19	70	none	48	6
20	56	none	22	2
21	69	dull	90	10
22	67	none	121	13
23	59	mildly	0	0
24	74	mildly	0	0
25	57	none	0	0
26	60	none	0	0

	SPT-mean length sent.	SPT-readability in...	SPT-% reading le...	SPT-interest level
1	8	college	42	none
2	8	12th	54	dull
3	7	college	45	mildly interesting
4	7	college	36	none
5	7	college	39	dull
6	8	college	41	dull
7	7	college	37	dull
8	7	college	37	dull
9	0		•	
10	7	college	46	dull
11	0		•	
12	10	11th	56	mildly intersting
13	4	college	37	none
14	9	10th	60	mildly interesting
15	6	graduate	28	none
16	8	college	36	dull
17	7	college	47	none
18	8	college	37	dull
19	8	12th	54	none
20	11	college	41	none
21	9	12th	53	dull
22	9	graduate	27	mildly
23	0		•	
24	0		•	
25	0		•	
26	0		•	

	warn panel-#words	warn panel-#sent.	warn panel-ave. length of sent.
1	335	43	7
2	547	62	8
3	420	58	7
4	456	72	6
5	394	42	9
6	500	57	8
7	490	78	6
8	622	64	9
9	191	16	11
10	258	25	10
11	219	58	13
12	301	25	12
13	234	29	8
14	424	56	7
15	470	52	9
16	680	83	8
17	423	47	9
18	640	61	10
19	457	55	8
20	351	39	9
21	740	83	8
22	458	53	8
23	86	7	12
24	139	12	11
25	137	15	9
26	136	14	9

	Entire Prod-readability...	Entire Prod-% readi...	Entire Prod-interest level	Expert Rate/i
1	12th	54	mildly intersting	7
2	12th	53	dull	6
3	10th	60	dull	6
4	11th	57	dull	7
5	12th	51	dull	6
6	college	50	dull	7
7	10th	58	dull	6
8	10th	58	dull	6
9	9th	63	mildly interesting	6
10	8th	67	mildly interesting	6
11	7th	74	mildly interesting	5
12	11th	57	interesting	2
13	9th	62	dull	8
14	10th	59	dull	5
15	9th	61	dull	6
16	10th	59	dull	6
17	11th	57	dull	5
18	11th	55	dull	7
19	9th	63	dull	8
20	11th	57	dull	7
21	8th	67	dull	8
22	11th	55	dull	8
23	8th	68	dull	1
24	7th	79	dull	i
25	7th	72	dull	2
26	7th	77	mildly interesting	i

	warn panel grade level	warn panel % readable	warn panel-interest level
1	12	52	dull
2	12	52	dull
3	9	61	dull
4	11	56	dull
5	13	47	dull
6	12	51	dull
7	10	60	dull
8	12	51	dull
9	9	61	mildly interesting
10	11	55	mildly interesting
11	10	60	interesting
12	9	61	interesting
13	10	58	dull
14	10	58	dull
15	9	61	dull
16	10	59	dull
17	10	60	dull
18	13	50	dull
19	9	63	dull
20	11	55	dull
21	9	64	dull
22	13	50	dull
23	9	61	dull
24	8	69	mildly interesting
25	9	65	dull
26	8	66	dull

	Entire Prod-# words	Entire Prod-# senten...	Entire Prod-mean leng s...
1	437	71	6
2	636	93	6
3	552	91	6
4	532	97	5
5	485	77	6
6	556	75	7
7	569	107	5
8	569	107	5
9	337	43	7
10	475	73	6
11	513	70	7
12	456	48	9
13	414	68	6
14	639	95	6
15	706	90	7
16	763	104	7
17	668	90	7
18	811	100	8
19	524	80	6
20	511	86	5
21	842	116	7
22	758	107	7
23	322	47	6
24	225	37	6
25	297	35	8
26	339	65	5

	Expert Rate/2	Expert Rate/3	Expert Rate/4	MEAN EXPERT	Notice Front Warn
1	3	3	4	4.250	3.41428571
2	3	3	3	3.750	4.20000000
3	3	3	3	3.750	3.32857143
4	3	3	3	4.000	4.55714286
5	3	3	3	3.750	3.32857143
6	3	3	4	4.250	4.78571429
7	1	2	3	3.000	3.75714286
8	3	3	3	3.750	4.27142857
9	1	1	1	2.250	2.52857143
10	1	2	3	3.000	4.07142857
11	1	1	1	2.000	3.47142857
12	1	1	2	1.500	3.75714286
13	4	2	5	4.750	4.45714286
14	1	6	4	4.000	4.07142857
15	2	3	4	3.750	3.67142857
16	4	3	4	4.250	3.88571429
17	5	4	4	4.500	4.11428571
18	4	3	4	4.500	4.22857143
19	6	5	5	6.000	4.67142857
20	4	3	4	4.500	4.04285714
21	4	3	4	4.750	3.84285714
22	4	4	3	4.750	4.51428571
23	0	0	0	.250	.45714286
24	0	0	0	.250	.75714286
25	0	0	0	.500	.30000000
26	0	0	0	.250	.45714286

	Notice Back Warn	Read Front W...	Read Back Warn	Understand Front	Understand Back
1	3.97142857	4.40000000	4.41428571	5.74285714	5.52857143
2	5.00000000	4.47142857	4.98571429	6.05714286	6.01428571
3	3.71428571	3.84285714	4.27142857	5.72857143	5.54285714
4	4.01428571	4.74285714	4.35714286	5.94285714	5.47142857
5	4.05714286	3.95714286	4.41428571	5.81428571	5.64285714
6	3.88571429	5.15714286	4.25714286	6.02857143	5.40000000
7	3.82857143	4.21428571	4.12857143	5.81428571	5.30571429
8	3.60000000	4.52857143	4.05714286	5.80000000	5.60000000
9	3.22857143	3.44285714	3.72857143	5.34285714	5.07142857
10	2.95714286	4.45714286	3.64285714	5.62857143	5.41428571
11	1.41428571	3.82857143	1.84285714	5.48571429	2.44285714
12	2.64285714	4.01428571	3.34285714	5.58571429	5.11428571
13	3.00000000	4.71428571	3.37142857	5.80000000	4.45714286
14	4.17142857	4.72857143	4.58571429	5.85714286	5.74285714
15	4.01428571	4.25714286	4.38571429	5.87142857	5.70000000
16	3.67142857	4.22857143	4.05714286	5.78571429	5.60000000
17	3.47142857	4.41428571	4.07142857	5.67142857	5.48571429
18	3.54285714	4.37142857	3.95714286	5.74285714	5.28571429
19	4.32857143	4.72857143	4.47142857	5.85714286	5.58571429
20	3.72857143	4.31428571	4.14285714	6.07142857	5.57142857
21	3.61428571	4.02857143	3.95714286	5.65714286	5.51428571
22	3.92857143	4.72857143	4.08571429	6.12857143	5.55714286
23	1.21428571	.85714286	1.47142857	1.17142857	2.74285714
24	.98571429	.85714286	1.34285714	1.10000000	2.51428571
25	1.02857143	.72857143	1.71428571	.47142857	2.74285714
26	1.25714286	.88571429	2.01428571	1.00000000	2.85714286

	Attract Front	Attract Back	Familiar Prod	Attract Prod	Strong/Potent
1	2.20000000	2.20000000	5.15714286	4.21428571	4.97142857
2	2.68571429	3.34285714	1.10000000	2.60000000	4.18571429
3	2.27142857	2.50000000	.70000000	2.67142857	3.98571429
4	2.62857143	2.37142857	4.41428571	3.92857143	4.72857143
5	2.30000000	2.67142857	2.02857143	3.88571429	4.60000000
6	2.75714286	2.14285714	2.74285714	3.35714286	4.82857143
7	2.64285714	2.37142857	1.07142857	3.52857143	4.48571429
8	2.60000000	2.24285714	2.45714286	3.10000000	4.52857143
9	2.18571429	2.27142857	2.98571429	4.34285714	4.24285714
10	2.60000000	2.00000000	2.04285714	3.85714286	4.18571429
11	2.15714286	1.02857143	3.07142857	3.95714286	4.25714286
12	2.10000000	1.70000000	2.71428571	3.45714286	4.22857143
13	2.34285714	1.58571429	.21428571	2.82857143	4.01428571
14	2.70000000	2.52857143	2.00000000	4.28571429	4.87142857
15	2.55714286	2.44285714	3.54285714	3.95714286	4.90000000
16	2.34285714	2.02857143	1.07142857	2.54285714	4.20000000
17	2.17142857	1.98571429	.62857143	2.20000000	4.04285714
18	2.45714286	2.05714286	1.35714286	2.57142857	4.10000000
19	2.61428571	2.41428571	1.12857143	3.14285714	4.35714286
20	2.57142857	2.21428571	3.20000000	4.28571429	4.61428571
21	2.18571429	1.85714286	.45714286	2.25714286	3.80000000
22	2.45714286	2.08571429	2.62857143	2.42857143	4.65714286
23	.62857143	1.27142857	.78571429	2.55714286	2.51428571
24	.68571429	1.14285714	.28571429	3.08571429	2.64285714
25	.37142857	1.05714286	3.15714286	3.62857143	3.87142857
26	.48571429	1.00000000	3.17142857	4.28571429	3.71428571

	Hazardous	Confid Know ...	Careful	Likely Injured	Difficult Use	Likely Bug
1	3.41428571	3.90000000	3.52857143	1.85714286	.90000000	4.32857143
2	3.78571429	3.68571429	3.62857143	2.07142857	1.10000000	2.24285714
3	3.78571429	3.44285714	3.60000000	1.94285714	1.20000000	1.67142857
4	3.78571429	3.80000000	3.77142857	2.02857143	1.08571429	3.81428571
5	3.61428571	3.84285714	3.68571429	1.90000000	1.10000000	2.81428571
6	3.64285714	3.81428571	3.40000000	2.01428571	1.20000000	3.14285714
7	3.61428571	3.64285714	3.54285714	2.08571429	1.01428571	2.37142857
8	3.81428571	3.64285714	3.45714286	2.14285714	1.22857143	2.54285714
9	2.94285714	3.51428571	2.78571429	1.50000000	.85714286	2.98571429
10	2.88571429	3.47142857	2.92857143	1.50000000	.94285714	2.92857143
11	2.47142857	3.02857143	2.68571429	1.45714286	.87142857	2.91428571
12	3.07142857	3.72857143	2.84285714	1.48571429	.98571429	3.00000000
13	4.28571429	2.71428571	4.50000000	2.70000000	2.11428571	1.31428571
14	4.04285714	3.45714286	4.18571429	2.34285714	2.05714286	2.72857143
15	4.02857143	3.75714286	4.27142857	2.41428571	2.01428571	3.08571429
16	3.90000000	3.34285714	3.98571429	2.21428571	1.32857143	2.00000000
17	4.04285714	3.47142857	3.98571429	2.34285714	1.54285714	1.77142857
18	3.80000000	3.42857143	3.68571429	2.11428571	1.47142857	2.00000000
19	3.95714286	3.55714286	4.01428571	2.44285714	1.65714286	1.94285714
20	3.85714286	3.75714286	4.08571429	2.24285714	1.55714286	2.92857143
21	3.70000000	3.25714286	4.05714286	2.17142857	1.58571429	1.48571429
22	4.00000000	3.50000000	3.80000000	2.45714286	1.67142857	2.40000000
23	1.51428571	3.88571429	2.07142857	.95714286	.62857143	2.11428571
24	1.68571429	3.14285714	2.30000000	1.30000000	.67142857	1.58571429
25	1.70000000	3.70000000	2.07142857	1.12857143	.81428571	2.94285714
26	1.68571429	3.55714286	2.27142857	1.08571429	.78571429	3.32857143

	Estim Cost	Lasting Effects
1	364.20000000	3.88571429
2	365.20000000	3.25714286
3	331.70000000	3.07142857
4	389.28571429	4.65714286
5	357.11428571	3.20000000
6	375.12857143	4.70000000
7	353.61428571	4.97142857
8	364.27142857	3.40000000
9	455.57142857	8.24285714
10	450.22857143	9.47142857
11	422.58571429	8.07142857
12	417.48571429	8.28571429
13	333.95714286	5.44285714
14	398.35714286	5.15714286
15	400.18571429	4.90000000
16	346.17142857	3.72857143
17	356.70000000	4.28571429
18	341.58571429	4.10000000
19	366.55714286	4.67142857
20	371.55714286	4.82857143
21	333.87142857	5.24285714
22	393.04285714	4.75362319
23	316.28571429	4.44285714
24	297.35714286	4.44285714
25	337.27142857	5.71428571
26	368.35714286	5.35714286

Appendix C

Expert ratings with other pest. ratings

Corr. Coeff. X₁: Notice Front Yarn Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.931	.88	.775

Corr. Coeff. X₂: Notice Back Yarn Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.553	.858	.736

Corr. Coeff. X₃: Read Front Yarn Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.885	.875	.765

Corr. Coeff. X₄: Read Back Yarn Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.428	.846	.715

Corr. Coeff. X₅: Understand Front Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	2.424	.839	.704

Expert ratings with other pest. ratings

Corr. Coeff. X₆: Understand Back Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.52	.815	.664

Corr. Coeff. X₇: Attract Front Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.965	.83	.689

Corr. Coeff. X₈: Attract Back Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.604	.662	.438

Corr. Coeff. X₉: Familiar Prod Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.167	-.079	.006

Corr. Coeff. X₁₀: Atract Prod Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.287	-.25	.062

Expert ratings with other pest. ratings

Corr. Coeff. X₁₁: Strong/Potent Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.607	.635	.403

Corr. Coeff. X₁₂: Hazardous Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.264	.931	.867

Corr. Coeff. X₁₃: Confid Know Haz Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.029	-.066	.004

Corr. Coeff. X₁₄: Careful Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.045	.917	.841

Corr. Coeff. X₁₅: Likely Injured Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.695	.916	.838

Expert ratings with other pest. ratings

Corr. Coeff. X₁₆: Difficult Use Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.504	.738	.544

Corr. Coeff. X₁₇: Likely Buy Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.191	-.163	.026

Corr. Coeff. X₁₈: Estim Cost Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	3.463	.056	.003

Corr. Coeff. X₁₉: Lasting Effects Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.907	-.339	.115

Corr. Coeff. X₂₀: Labeling prod is safe Y₁: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.506	-.733	.537

Expert ratings with other pest. ratings

Corr. Coeff. X21: Lableing safe-used as directed Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.493	-.764	.584

Corr. Coeff. X22: Label-misuse against Fed Law Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.409	.562	.316

Corr. Coeff. X23: Poison/Toxic Symptoms Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.015	.033	.001

Corr. Coeff. X24: To do w/personal contact Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.56	.691	.478

Corr. Coeff. X25: Separate heads for pers contact Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.435	.531	.282

Expert ratings with other pest. ratings

Corr. Coeff. X26: Antidote listed Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.288	.352	.124

Corr. Coeff. X27: Danger to pets Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.592	.782	.612

Corr. Coeff. X28: Do not induce vomiting Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.038	.051	.003

Corr. Coeff. X29: Medical Attention suggested Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.354	.454	.206

Corr. Coeff. X30: Call Physician Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.435	.531	.282

Expert ratings with other pest. ratings

Corr. Coeff. X31: Note to Physician Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.23	.285	.081

Corr. Coeff. X32: Call Poison Hotline Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.141	.194	.038

Corr. Coeff. X33: Flammable Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.612	.749	.562

Corr. Coeff. X34: Avoid Heat Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.579	.796	.634

Corr. Coeff. X35: Contents under pressure Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.577	.724	.524

Expert ratings with other pest. ratings

Corr. Coeff. X36: Phone * to call manuf. Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.129	-.177	.031

Corr. Coeff. X37: * of Signal Words Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.19	.131	.017

Corr. Coeff. X38: Warning Pictorials Pres Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
25	0	•	•

Note: 1 case deleted with missing values.

Corr. Coeff. X39: sSignal word left just. or center Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
23	-1.054	-.438	.192

Note: 3 cases deleted with missing values.

Corr. Coeff. X40: Color of Signal Word Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
24	-.25	-.045	.002

Note: 2 cases deleted with missing values.

Expert ratings with other pest. ratings

Corr. Coeff. X41: Color Sig Word diff other text Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
25	.22	.09	.008

Note: 1 case deleted with missing values.

Corr. Coeff. X42: Sig Word in CAPITALS Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
25	.159	.318	.101

Note: 1 case deleted with missing values.

Corr. Coeff. X43: Sig Word Larger other text Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
25	-.051	-.071	.005

Note: 1 case deleted with missing values.

Corr. Coeff. X44: Warning present Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.175	.402	.161

Corr. Coeff. X45: Warning separate text Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.038	.051	.003

Expert ratings with other pest. ratings

Corr. Coeff. X46: Sig word larger front text Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.448	.548	.3

Corr. Coeff. X47: NUMBER OF PICTORIALS BACK Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-1.539	-.502	.252

Corr. Coeff. X48: NUMBER OF FONTS ON BACK Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-1.99	-.644	.415

Corr. Coeff. X49: NUMBER OF COLORS BACK Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.585	-.384	.147

Corr. Coeff. X50: # of pictorials Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-1.027	-.481	.231

Expert ratings with other pest. ratings

Corr. Coeff. X51: * Font/Text Sizes Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.855	.266	.071

Corr. Coeff. X52: * of colors Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	-.429	-.368	.136

Corr. Coeff. X53: *of pests effective Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	6.489	.588	.346

Corr. Coeff. X54: Duration of Effect (days) Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
9	-35.74	-.891	.794

Note: 17 cases deleted with missing values.

Corr. Coeff. X55: * of Ingrid. Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	1.793	.601	.361

Expert ratings with other pest. ratings

Corr. Coeff. X56: Average Price Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
26	.93	.556	.309

Corr. Coeff. X57: Net Weight (oz) Y1: MEAN EXPERT

Count:	Covariance:	Correlation:	R-squared:
25	3.88	.509	.259

Note: 1 case deleted with missing values.

Appendix D

Overall Back Warn Panel with other pest. ratings --All 26 Products

Correlation Matrix for Variables: X1 ... X29

	warn pa...	warn pa...	warn pa...	warn pa...	warn pa...	Entire P...	Entire P...	Entire P...
warn pan...	1							
warn pan...	.898	1						
warn pan...	-.504	-.569	1					
warn pan...	.447	.37	-.246	1				
warn pan...	-.42	-.33	.228	-.972	1			
Entire Pr...	.889	.821	-.364	.42	-.387	1		
Entire Pr...	.876	.889	-.606	.456	-.431	.879	1	
Entire Pr...	.043	-.095	.439	-.053	.082	.204	-.252	1
Entire Pr...	-.59	-.486	.463	-.735	.796	-.511	-.506	-.044
MEAN EX...	.731	.685	-.579	.52	-.524	.708	.731	-.089
Notice Fr...	.698	.698	-.412	.567	-.593	.685	.695	-.004
Notice Ba...	.743	.676	-.649	.553	-.601	.654	.712	-.158
Read Fro...	.668	.677	-.433	.58	-.623	.658	.671	-.012
Read Bac...	.73	.652	-.65	.534	-.591	.645	.699	-.131
Understa...	.665	.68	-.367	.544	-.6	.664	.668	.002
Understa...	.741	.608	-.582	.51	-.573	.657	.686	-.065

Correlation Matrix for Variables: X1 ... X29

	warn pa...	warn pa...	warn pa...	warn pa...	warn pa...	Entire P...	Entire P...	Entire P...
Attract F...	.674	.69	-.415	.556	-.61	.643	.681	-.085
Attract B...	.605	.535	-.556	.499	-.567	.484	.566	-.222
Familiar ...	-.172	-.089	-.043	.228	-.252	-.163	-.129	-.025
Atract P...	-.426	-.294	.041	-.081	.013	-.448	-.328	-.26
Strong/P...	.456	.512	-.501	.536	-.581	.442	.491	-.042
Hazardous	.747	.702	-.589	.487	-.526	.727	.755	-.06
Confid Kn...	.052	-.04	-.16	.266	-.325	-.061	-.017	-.094
Careful	.696	.666	-.61	.367	-.396	.707	.742	-.132
Likely Inj...	.69	.656	-.593	.394	-.399	.697	.732	-.105
Difficult ...	.485	.412	-.405	.155	-.184	.616	.553	.043
Likely Buy	-.221	-.13	-.055	.225	-.267	-.244	-.18	-.099
Estim Cost	-.1	-.045	.213	.12	-.198	.04	-.038	.154
Lasting E...	-.451	-.386	.532	-.3	.274	-.285	-.431	.337

Appendix D

Overall Back Warn Panel with other pest. ratings -- All 26 Products

Correlation Matrix for Variables: X1 ... X29

	warn pa...	warn pa...	warn pa...	warn pa...	warn pa...	Entire P...	Entire P...	Entire P...
warn pan...	1							
warn pan...	.898	1						
warn pan...	-.504	-.569	1					
warn pan...	.447	.37	-.246	1				
warn pan...	-.42	-.33	.228	-.972	1			
Entire Pr...	.889	.821	-.364	.42	-.387	1		
Entire Pr...	.876	.889	-.606	.456	-.431	.879	1	
Entire Pr...	.043	-.095	.439	-.053	.082	.204	-.252	1
Entire Pr...	-.59	-.486	.463	-.735	.796	-.511	-.506	-.044
MEAN EX...	.731	.685	-.579	.52	-.524	.708	.731	-.009
Notice Fr...	.698	.698	-.412	.567	-.593	.685	.695	-.004
Notice Ba...	.743	.676	-.649	.553	-.601	.654	.712	-.158
Read Fro...	.668	.677	-.433	.58	-.623	.658	.671	-.012
Read Bac...	.73	.652	-.65	.534	-.591	.645	.699	-.131
Understa...	.665	.68	-.367	.544	-.6	.664	.668	.002
Understa...	.741	.608	-.582	.51	-.573	.657	.686	-.065

Correlation Matrix for Variables: X1 ... X29

	warn pa...	warn pa...	warn pa...	warn pa...	warn pa...	Entire P...	Entire P...	Entire P...
Attract F...	.674	.69	-.415	.556	-.61	.643	.681	-.085
Attract B...	.605	.535	-.556	.499	-.567	.484	.566	-.222
Familiar ...	-.172	-.089	-.043	.228	-.252	-.163	-.129	-.025
Atract P...	-.426	-.294	.041	-.081	.013	-.448	-.328	-.26
Strong/P...	.456	.512	-.501	.536	-.581	.442	.491	-.042
Hazardous	.747	.702	-.589	.487	-.526	.727	.755	-.06
Confid Kn...	.052	-.04	-.16	.266	-.325	-.061	-.017	-.094
Careful	.696	.666	-.61	.367	-.396	.707	.742	-.132
Likely Inj...	.69	.656	-.593	.394	-.399	.697	.732	-.105
Difficult ...	.485	.412	-.405	.155	-.184	.616	.553	.043
Likely Buy	-.221	-.13	-.055	.225	-.267	-.244	-.18	-.099
Estim Cost	-.1	-.045	.213	.12	-.198	.04	-.038	.154
Lasting E...	-.451	-.386	.532	-.3	.274	-.285	-.431	.337

Overall Back Warn Panel with other pest. ratings--All 26 Products

Correlation Matrix for Variables: X1 ... X29

	Entire P...	MEAN E...	Notice F...	Notice B...	Read Fro...	Read Ba...	Underst...	Underst...
Entire Pr...	1							
MEAN EX...	-.681	1						
Notice Fr...	-.72	.88	1					
Notice Ba...	-.837	.858	.822	1				
Read Fro...	-.759	.875	.986	.852	1			
Read Bac...	-.839	.846	.821	.989	.86	1		
Understa...	-.748	.839	.952	.852	.977	.86	1	
Understa...	-.831	.815	.81	.956	.841	.977	.848	1

Correlation Matrix for Variables: X1 ... X29

	Entire P...	MEAN E...	Notice F...	Notice B...	Read Fro...	Read Ba...	Underst...	Underst...
Attract F...	-.739	.83	.958	.873	.976	.874	.976	.856
Attract B...	-.779	.662	.651	.935	.694	.918	.723	.883
Familiar ...	-.14	-.079	.002	.036	.079	.082	.064	.033
Atract P...	.12	-.25	-.158	-.094	-.066	-.041	-.051	-.102
Strong/P...	-.673	.635	.709	.719	.776	.759	.749	.697
Hazardous	-.767	.931	.907	.899	.913	.901	.899	.901
Confid Kn...	-.435	-.066	-.074	.254	-.022	.267	-.022	.277
Careful	-.632	.917	.815	.826	.815	.818	.798	.788
Likely Inj...	-.616	.916	.827	.796	.811	.775	.772	.745
Difficult ...	-.372	.738	.624	.562	.607	.557	.558	.541
Likely Buy	-.16	-.163	-.043	.035	.046	.085	.026	.036
Estim Cost	-.125	.056	.325	.186	.387	.239	.411	.25
Lasting E...	.386	-.339	-.071	-.377	-.055	-.325	-.039	-.261

Overall Back Warn Panel with other pest. ratings-- All 26 Products

Correlation Matrix for Variables: X1 ... X29

	Attract ...	Attract ...	Familiar...	Atract P...	Strong/...	Hazardous	Confid K...	Careful
Attract F...	1							
Attract B...	.769	1						
Familiar ...	.058	.009	1					
Atract P...	-.006	-.021	.727	1				
Strong/P...	.76	.599	.572	.411	1			
Hazardous	.888	.742	-.082	-.213	.695	1		
Confid Kn...	.02	.367	.52	.295	.289	-.056	1	
Careful	.785	.648	-.133	-.196	.606	.957	-.141	1
Likely Inj...	.774	.607	-.175	-.278	.589	.951	-.195	.968
Difficult ...	.56	.373	-.189	-.189	.453	.782	-.294	.866
Likely Buy	.042	.055	.953	.782	.529	-.156	.614	-.215
Estim Cost	.418	.192	.533	.556	.534	.12	.123	-.004
Lasting E...	-.049	-.383	.216	.403	-.021	-.326	-.228	-.373

Correlation Matrix for Variables: X1 ... X29

	Likely In...	Difficult...	Likely Buy	Estim Co...	Lasting ...
Likely Injured	1				
Difficult Use	.879	1			
Likely Buy	-.282	-.319	1		
Estim Cost	-.023	.015	.545	1	
Lasting Effec...	-.381	-.205	.24	.722	1

Overall Back Warn Panel with other pest. ratings--Deleting the Traps--22 Products

Correlation Matrix for Variables: X1 ... X29

	Warn pa...	Warn pa...	Warn pa...	Warn pa...	Warn pa...	Entire P...	Entire P...	Entire P...
Warn pan...	1							
Warn pan...	.822	1						
Warn pan...	-.409	-.5	1					
Warn pan...	.19	.054	-.112	1				
Warn pan...	-.107	.063	.087	-.976	1			
Entire Pr...	.824	.698	-.209	.135	-.012	1		
Entire Pr...	.823	.842	-.57	.229	-.113	.806	1	
Entire Pr...	.004	-.208	.598	-.156	.17	.259	-.325	1
Entire Pr...	-.275	-.037	.42	-.609	.659	-.075	-.123	.054
MEAN EX...	.469	.335	-.586	.209	-.138	.417	.508	-.279
Notice Fr...	.361	.301	-.345	.318	-.25	.325	.404	-.149
Notice Ba...	.497	.314	-.735	.278	-.29	.283	.44	-.374
Read Fro...	.241	.194	-.488	.398	-.369	.183	.302	-.245
Read Bac...	.463	.235	-.724	.239	-.273	.239	.389	-.35
Understa...	.374	.332	-.589	.494	-.48	.321	.501	-.381
Understa...	.489	.143	-.601	.184	-.224	.282	.377	-.217

Note: 4 cases deleted with missing values.

Correlation Matrix for Variables: X1 ... X29

	Warn pa...	Warn pa...	Warn pa...	Warn pa...	Warn pa...	Entire P...	Entire P...	Entire P...
Attract F...	.28	.278	-.476	.307	-.319	.131	.378	-.517
Attract B...	.298	.15	-.538	.234	-.292	.073	.251	-.403
Familiar ...	-.33	-.229	.109	.238	-.282	-.347	-.306	-.082
Atract P...	-.59	-.42	.153	-.058	-.043	-.628	-.501	-.28
Strong/P...	-.097	-.013	-.295	.348	-.408	-.153	-.004	-.3
Hazardous	.495	.333	-.671	.105	-.095	.448	.563	-.259
Confid Kn...	.138	.001	-.222	.32	-.376	-.092	-.002	-.156
Careful	.412	.329	-.616	-.029	.053	.446	.532	-.276
Likely Inj...	.416	.329	-.573	.047	-.004	.458	.553	-.251
Difficult ...	.217	.088	-.275	-.161	.168	.424	.34	.003
Likely Buy	-.352	-.24	.056	.259	-.316	-.424	-.356	-.125
Estim Cost	-.604	-.553	.554	-.146	.093	-.424	-.572	.199
Lasting E...	-.622	-.552	.649	-.375	.362	-.41	-.609	.346

Overall Back Warn Panel with other pest. ratings--Deleting the Traps --22 Products

Correlation Matrix for Variables: X1 ... X29

	Entire P...	MEAN E...	Notice F...	Notice B...	Read Fro...	Read Ba...	Underst...	Underst...
Entire Pr...	1							
MEAN EX...	-.254	1						
Notice Fr...	-.252	.591	1					
Notice Ba...	-.654	.579	.286	1				
Read Fro...	-.397	.591	.911	.412	1			
Read Bac...	-.681	.527	.227	.977	.377	1		
Understa...	-.601	.579	.678	.677	.716	.602	1	
Understa...	-.634	.436	.199	.864	.297	.931	.494	1

Correlation Matrix for Variables: X1 ... X29

	Entire P...	MEAN E...	Notice F...	Notice B...	Read Fro...	Read Ba...	Underst...	Underst...
Attract F...	-.302	.322	.612	.561	.689	.517	.69	.416
Attract B...	-.576	.241	.02	.896	.144	.892	.488	.775
Familiar ...	-.141	-.278	-.167	-.06	.033	-.036	.057	-.085
Atract P...	.097	-.423	-.383	-.14	-.158	-.098	-.158	-.167
Strong/P...	-.435	.057	.119	.35	.408	.35	.472	.227
Hazardous	-.459	.781	.525	.663	.541	.643	.66	.582
Confid Kn...	-.642	-.054	-.04	.541	.11	.601	.347	.594
Careful	-.227	.792	.427	.543	.443	.51	.564	.432
Likely Inj...	-.244	.814	.57	.511	.565	.449	.623	.37
Difficult ...	.009	.619	.428	.262	.422	.233	.393	.209
Likely Buy	-.212	-.363	-.189	-.003	.052	.038	.029	-.015
Estim Cost	.345	-.629	-.284	-.389	-.205	-.358	-.369	-.278
Lasting E...	.616	-.63	-.254	-.701	-.296	-.667	-.598	-.516

Overall Back Warn Panel with other pest. ratings--Deleting the Traps--22 Products

Correlation Matrix for Variables: X1 ... X29

	Attract ...	Attract ...	Familiar...	Atract P...	Strong/...	Hazardous	Confid K...	Careful
Attract F...	1							
Attract B...	.525	1						
Familiar ...	.043	-.031	1					
Atract P...	.143	.034	.714	1				
Strong/P...	.468	.286	.748	.627	1			
Hazardous	.372	.402	-.355	-.441	.115	1		
Confid Kn...	.318	.594	.562	.369	.634	-.009	1	
Careful	.273	.26	-.322	-.308	.097	.923	-.142	1
Likely inj..	.356	.207	-.365	-.424	.102	.942	-.197	.935
Difficult ...	.234	.016	-.335	-.251	.055	.772	-.348	.85
Likely Buy	.118	.075	.951	.777	.76	-.429	.651	-.404
Estim Cost	-.003	-.172	.515	.611	.238	-.675	.137	-.644
Lasting E...	-.243	-.552	.179	.396	-.184	-.736	-.264	-.618

Correlation Matrix for Variables: X1 ... X29

	Likely In...	Difficult...	Likely Buy	Estim Co...	Lasting ...
Likely Injured	1				
Difficult Use	.863	1			
Likely Buy	-.476	-.461	1		
Estim Cost	-.607	-.334	.544	1	
Lasting Effec...	-.604	-.274	.213	.81	1