

## Conclusions

- BASED ON RANKING OF  
Products ON overall acceptability,

Products

{ BPI-R  
TG-39  
AT-47M }

were better performers  
than

Products  
{ Model 10  
DR-1 }

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ATTB  
PRODUCT DESCRIPTIONS

| PRODUCT<br>ID | CODE<br>NO. | SUBMITTOR | BRIEF DESCRIPTION  |
|---------------|-------------|-----------|--|
| DLR           | 113         | KWS       | NEW MODEL W/ COMBINED FLAVOR<br>EFFORT   |
| AT-43M        | 139         | KWS       | ADJUSTED FIRM. A FLAVOR SYSTEM<br>W/ FL-59 MOUTHEND COMPONENTS                         |
| FL-59M        | 257         | KWS       | ADJUSTED FL-59 FLAVOR SYSTEM<br>BUT NO FLAVOR ON TOBACCO JACKET                        |
| AT-47M        | 273         | KWS       | FIRM. A FLAVOR SYSTEM<br>(ADJUSTED) W/ TOBACCO PAPER<br>PLUG (UNTREATED)               |
| AT-48M        | 317         | KWS       | WINNER OF ATTB ACCEPTANCE TEST<br>ADJUSTED & W/ UNTREATED TPP                          |
| MODEL-10      | 347         | KWS       | MODEL FROM FIRM. WORK SESSION<br>4/29/87   |
| BPI-R         | 459         | GS        | RELATED TO BP-1<br>FRUCTOSE, CAB, B-3, SMOKE &<br>RAISIN FLAVOR FROM CRESCENT<br>FOODS |
| DR-1          | 719         | DLR       |  |
| T6-39         | 618         | TL6       | RELATED TO BP-1  |
| T6-43         | 527         | TL6       | RELATED TO T6-34   |
| T6-44         | 512         | TL6       |  |
| T6-46         | 479         | TL6       | RELATED TO T6-34   |

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ATT9

## SUMMARY OF RANKS

BEST

WORST

|    | SAMPLE<br>CODE<br>8 | PROD.<br>ID | RANK<br>1st Position |  | RANK<br>2nd Position |  | RANK<br>3rd Position |      | RANK<br>4th Position |    |
|----|---------------------|-------------|----------------------|--|----------------------|--|----------------------|------|----------------------|----|
|    |                     |             |                      |  |                      |  |                      |      |                      |    |
| 1. | 113                 | DLR         | 2                    |  | 4                    |  | 8                    | 14   | 6                    |    |
| 2. | 139                 | AT-43M      | 4                    |  | 2                    |  | 10                   | 14   | 4                    |    |
| 3. | 257                 | FL-59M      | 2                    |  | 6                    |  | 7                    | (11) | 4                    | 2b |
| 4  | 273                 | AT-47M      | 2                    |  | 4                    |  | 11                   | 14   | 3                    |    |
| 5. | 317                 | AT-48M      | 3                    |  | 3                    |  | 9                    | 14   | 5                    |    |
| 6. | 347                 | MODEL 10    | 3                    |  | 1                    |  | 7                    | 6    | 9                    |    |
| 7. | 459                 | BPI-R       | 4                    |  | 5                    |  | 6                    | (11) | 5                    | 1  |
| 8. | 719                 | DR-1        | 1                    |  | 1                    |  | 4                    | 18   | 14                   |    |
| 9  | 618                 | T6-39       | 4                    |  | 3                    |  | 9                    | (13) | 4                    | 3  |
| 0. | 527                 | T6-43       | 1                    |  | 5                    |  | 5                    | 14   | 9                    |    |
| 11 | 512                 | T6-44       | 5                    |  | 3                    |  | 5                    | (12) | 7                    | 2A |
| 2. | 479                 | T6-46       | 3                    |  | 4                    |  | 7                    | (13) | 6                    | 4  |

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# Correlation of Attribute

RANK TO overall acceptance

rank (R).\*

| ATTRIBUTES        | R-value |
|-------------------|---------|
| Harshness         | - 0.62  |
| Strength / Impact | 0.56    |
| Satisfaction      | 0.75    |
| Lit Aroma         | 0.42    |
| Lit Flavor        | 0.82    |
| Aftertaste        | 0.56    |

\* Higher R-value = more important in influencing "overall acceptability" scores.

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LIT AROMA

|          |      |
|----------|------|
| BP-1R    | 6.35 |
| TG-43    | 6.10 |
| TG-39    | 5.85 |
| FL-59M   | 5.80 |
| AT-43m   | 5.75 |
| DLR      | 5.65 |
| AT-48m   | 5.60 |
| AT-47m   | 5.60 |
| TG-44    | 5.55 |
| Model 10 | 5.50 |
| DR-1     | 5.35 |
| TG-46    | 5.25 |

LIT FLAVOR

|          |      |
|----------|------|
| AT-47m   | 6.00 |
| TG-39    | 5.95 |
| BP1-R    | 5.75 |
| TG-46    | 5.75 |
| TG-44    | 5.75 |
| FL-59m   | 5.65 |
| AT-48m   | 5.40 |
| DLR      | 5.40 |
| AT-43m   | 5.35 |
| TG-43    | 5.20 |
| Model 10 | 5.20 |
| DR-1     | 4.25 |

HARSHNESS

|          |      |
|----------|------|
| AT48m    | 6.15 |
| TG-39    | 6.05 |
| TG-44    | 5.95 |
| TG-46    | 5.85 |
| BP-1R    | 5.85 |
| AT-43m   | 5.80 |
| FL-59m   | 5.70 |
| DR-1     | 5.30 |
| DLR      | 5.25 |
| TG-43    | 5.25 |
| AT-47m   | 5.05 |
| Model 10 | 4.70 |

STRENGTH / IMPACT

|          |      |
|----------|------|
| TG-39    | 6.50 |
| AT-48m   | 6.42 |
| BP-1R    | 6.30 |
| TG-44    | 6.25 |
| FL-59m   | 6.15 |
| TG-43    | 6.15 |
| AT-47m   | 6.05 |
| AT-43m   | 5.90 |
| TG-46    | 5.85 |
| DR-1     | 5.75 |
| DLR      | 5.60 |
| Model 10 | 5.05 |

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AFTERTASTE

|          |      |
|----------|------|
| TG-43    | 6.15 |
| BP-1R    | 6.05 |
| AT-47M   | 5.80 |
| AT-48M   | 5.55 |
| AT-43M   | 5.55 |
| TG-44    | 5.55 |
| FL-55M   | 5.45 |
| TG-46    | 5.30 |
| DLR      | 5.30 |
| TG-39    | 5.25 |
| Model 10 | 5.00 |
| DR-1     | 4.90 |

SATISFACTION

|          |      |
|----------|------|
| BP-1R    | 6.1  |
| AT-48M   | 6.05 |
| TG-39    | 6.0  |
| AT-47M   | 5.95 |
| TG-44    | 5.90 |
| TG-46    | 5.85 |
| DLR      | 5.65 |
| FL-59M   | 5.63 |
| AT-43M   | 5.47 |
| TG-43    | 5.35 |
| Model 10 | 5.30 |
| DR1      | 5.10 |

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### Question

Did this product taste close to  
A TRADITIONAL CIGARETTE?

|                 | <u>YES</u> % | <u>NO</u> % |
|-----------------|--------------|-------------|
| 1. DLR          | 25           | 75          |
| 2. AT-43M       | 35           | 65          |
| 3. FL-59M       | 33.3         | 66.7        |
| 4. AT-47M       | 31.6         | 68.4        |
| 5. AT-48M       | 16.7         | 83.3        |
| 6. MODEL A L-10 | 35.0         | 65.0        |
| 7. BPI-R        | 36.8         | 63.2        |
| 8. DL-1         | 9.5          | 90.5        |
| 9. TG-39        | 23.8         | 76.2        |
| 10. TG-43       | 23.8         | 76.2        |
| 11. TG-44       | 33.3         | 66.7        |
| 12. TG-46       | 30.0         | 70.0        |

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# Smokers: Would you SWITCH ??

| <u>code #</u> | <u>YES</u> % | <u>NO</u> % |
|---------------|--------------|-------------|
| 1. DLR        | 27.7         | 72.3        |
| 2. AT-43M     | 35.0         | 65.0        |
| 3. FL-59M     | 42.9         | 57.1        |
| 4. AT-47M     | 47.4         | 52.6        |
| 5. AT-48M     | 44.4         | 55.6        |
| 6. L-10       | 31.6         | 68.4        |
| 7. BPI-12     | 47.4         | 52.6        |
| 8. DR-1       | 14.3         | 85.7        |
| 9. TG-39      | 35.0         | 65.0        |
| 10. TG-43     | 23.8         | 76.2        |
| 11. TG-44     | 45.0         | 55.0        |
| 12. TG-46     | 35.0         | 65.0        |

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015.0



COMMENTS

AT-42

FLAVOR

FLAVOR WASN'T VERY GOOD (2)

#412

STRENGTH/HARSHNESS

GOOD STRENGTH AND HARSHNESS (4)

LACKED IMPACT (3)

GOOD IMPACT (1)

TOO HARSH (3)

BURN-BACK PROBLEMS

FUEL SOURCE BURNED OUT EARLY

OVERALL

GOOD CIGARETTE (3)

.....  
FL-60

FLAVOR

BURNT OFF-TASTE (5)

PEPPERY (2)

TOO BLAND

TOBACCO TASTE

#249

AFTERTASTE: UNLIKE CIGARETTE

STRENGTH/HARSHNESS

HIGH PRESSURE DROP

UNEVEN AEROSOL DELIVERY

OVERALL

VERY GOOD PRODUCT

TOO HOT TO TOUCH

.....  
VP-1

FLAVOR

SLIGHT OFF-TASTE

TOO HIGHLY FLAVORED

DIRTY TASTE

BAD OVERALL TASTE

COFFEE TASTE (2)

AFTERTASTE: OBJECTIONABLE  
CLEANER

#853

STRENGTH/HARSHNESS

GOOD STRENGTH (2)

NOT STRONG ENOUGH

NOT ENOUGH MOUTHFEEL

NICOTINE STING IN BACK OF THROAT

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VP-1 (cont'd)

BIT TOO HARSH  
NOT ENOUGH SATISFACTION  
SATISFYING (2)  
GOOD DELIVERY  
HIGH PRESSURE DROP

# 853 (cont'd)

OVERALL  
GOOD PRODUCT  
NOT BAD

.....  
AT-33

FLAVOR:

TOBACCO TASTE  
BETTER TASTE ON LAST 4-6 PUFFS  
ALFOL TASTE OR ALPHA TYPE OFF-TASTE (4)  
DRY TASTE (2)  
SLIGHTLY SOUR

# 792

STRENGTH/HARSHNESS

VERY LITTLE MOUTHFEEL (2)  
IMPACT WAS VERY LATE (2)  
NICOTINE/STRENGTH DELIVERY VARIES (5)  
SOME THROAT HARSHNESS (2)  
MILD  
NO SATISFACTION (3)  
NO IMPACT FIRST PUFFS

OVERALL

TOBACCO JACKET BURNED  
NOT VERY PLEASANT (2)  
NOT UNPLEASANT  
NOT TOO WILD

.....  
BP-1

FLAVOR

EARTHY TASTE  
TOO ARTIFICIAL IN TASTE (2)  
UNEVEN FLAVOR  
LIT AROMA WAS OK  
TOO PEPPERY  
ACCEPTABLE AFTERTASTE

# 940

STRENGTH/HARSHNESS

TOO MUCH NICOTINE OR IMPACT (2)  
TOO HARSH OR STRONG (9)  
GOOD EARLY IMPACT

.....  
BN-1

FLAVOR:

ARTIFICIAL TASTE (2)  
SWEET TASTE

# 575

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BW-1 (cont'd)

PLEASANT NON-TOBACCO FLAVOR (2)  
ARTIFICIAL AFTERTASTE  
GLYCOL TYPE AFTERTASTE  
CARDBOARD TYPE AFTERTASTE  
AFTERTASTE NOT TOO STRONG  
VERY LITTLE OFF-TASTE  
INITIAL SWEET TASTE - I ADMORED IT  
NICE LIT AROMA  
OVERALL TASTE ACCEPTABLE

#575

STRENGTH/HARSHNESS  
VERY LOW STRENGTH  
LOW IMPACT (4)  
NOT ENOUGH MOUTHFEEL  
MILD

OVERALL  
HARD TO LIGHT  
BURN-BACK PROBLEMS  
VERY GOOD PRODUCT  
GOOD PRODUCT  
FAIRLY GOOD

.....

VP9-S0

FLAVOR:

BURNT PLASTIC TASTE  
CLOSE TO A CIGARETTE TASTE  
TOO HEAVY FLAVOR  
AMMONIATED FLAVOR  
UNPLEASANT FLAVOR

#397

STRENGTH/HARSHNESS  
VERY GOOD IMPACT (4)  
SLIGHTLY HARSH  
IMPACT RUNS OUT HALF WAY THROUGH THE PRODUCT  
NOT ENOUGH MOUTHFEEL  
TOO STRONG (2)

OVERALL:  
THIS IS A GOOD PRODUCT FROM START TO FINISH  
GLASS MELTED  
SLIGHT DRYNESS IN THE MOUTH  
HIGH PRESSURE DROP  
BURNING SENSATION ON TONGUE  
GOOD SATISFACTION

.....

FIRM-A

FLAVOR:

GOOD UNIFORM TASTE  
VERY MILD- NOT TOO MUCH STRENGTH  
A TOLERABLE AMOUNT OF ALPHA TASTE  
UNBALANCED TASTE  
OILY AFTERTASTE

#628

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*Firm-A (cont'd)*

ADHESIVE FLAVOR STRONG  
CARDBOARD FLAVOR  
CHEMICAL TASTE  
LIQUID WICKORY SMOKE TASTE  
BITTER 1ST PUFF TASTE  
EARTHY TASTE INITIALLY, THEN RAN OUT  
TASTES LIKE DAMP HAY

*#628 (cont'd)*

STRENGTH/HARSHNESS

GOOD DELIVERY  
TOO HARSH  
GOOD STRENGTH/IMPACT (2)  
GOOD MOUTH FEEL  
LITTLE MOUTH FEEL (2)

OVERALL

GOOD OR GREAT PRODUCT (3)  
.....

TG-30

FLAVOR:

TOO MUCH CHEMICAL TASTE  
FLAVOR VERY SWEET (3)  
SPICY FLAVOR  
BURNT TASTE

*#718*

STRENGTH/HARSHNESS

LOW STRENGTH (2)  
LOW THROAT IMPACT (3)  
STRENGTH/HARSHNESS WAS GOOD  
NO MOUTHFEEL  
TOO MUCH NICOTINE AT ONCE

OVERALL

BURN-BACK PROBLEMS  
.....

TG-34

FLAVOR:

VERY UNLIKE CIGARETTE SMOKE  
BARN MANURE  
GOOD TASTE  
NEEDS MORE BALANCED TASTE  
PLEASANT LIT AROMA  
GOOD TASTE

*#465*

STRENGTH/HARSHNESS

NOT ENOUGH OVERALL STRENGTH (2)  
GOOD EARLY IMPACT AND SATISFACTION  
WENT OUT EARLY

OVERALL

VERY WARM FILTER END  
.....

FL-63

FLAVOR:

*#118*

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FL-63

# 118

GOOD TASTE

STRENGTH/HARSHNESS

GOOD STRENGTH

VERY GOOD MIDDLE PUFFS

LAST PUFFS NOT ENOUGH MOUTH SENSATION

.....

FL-69

FLAVOR:

SOOR TASTE

TYPICAL ALPHA TASTE

PLASTIC AROMA AND TASTE

STRONG PEPPERY TASTE

SOMEWHAT MUSTY

FLAVOR TOO HIGH

VERY LITTLE FLAVOR

OFF TASTE

NO CIGARETTE-LIKE AFTERTASTE

# 315

STRENGTH/HARSHNESS

NO IMPACT OR STRENGTH (2)

TOO HARSH (3)

GOOD MOUTHFEEL (2)

NOT MUCH IRRITATION

STRENGTH VARIES (2)

BIT HARSH

MOUTH DRYING DURING SMOKING (2)

BURN-BACK PROBLEMS

POOR AEROSOL

.....

50640 9020

9020.0