

WINSTON King

Performance

In the last NFO competitive wave (Wave II, 1988) only Marlboro KS was tested. Results show that the improved WINSTON King product is rated parity versus Marlboro King among both competitive and franchise smokers.

	Marlboro Males <u>21-34</u>	Franchise 18+ <u>(Ex. Females 50+)</u>
WINSTON KS (Mfg. Confirmation)	57	55
Marlboro KS	54	53

Major Attributes

	<u>W KS</u>	<u>M KS</u>	<u>Ideal</u>
Strength	4.02	4.08	4.35
Tobacco Taste	4.18	4.16	4.64
Harshness	3.68	3.67	3.32
Smoothness	4.22	4.29	4.79

Benefits - Parity on all key attributes

Development

The next competitive wave results will reflect the performance of the improved WINSTON King product which was implemented 3/14/88 into 10% U.S. Distribution. These results are due 11/1/88. A final 1988 wave will be mailed 11/28 with results 1/9/89.

National expansion of the improved product continues to be on schedule with production start targeted for October 3, 1988.

Revised: 08/24/88

WINSTON King

The improved product was introduced into a 10% lead market in March, 1988. The decision to launch into a lead market was based on two issues surrounding the product: 1) will the new product represent a risk to current franchise, and 2) allow time for tobacco processing and production to gain experience with the ammoniation of the flue-cured blend component.

Final results from the lead market have determined that the new product does not represent a risk to current WINSTON King franchise smokers.

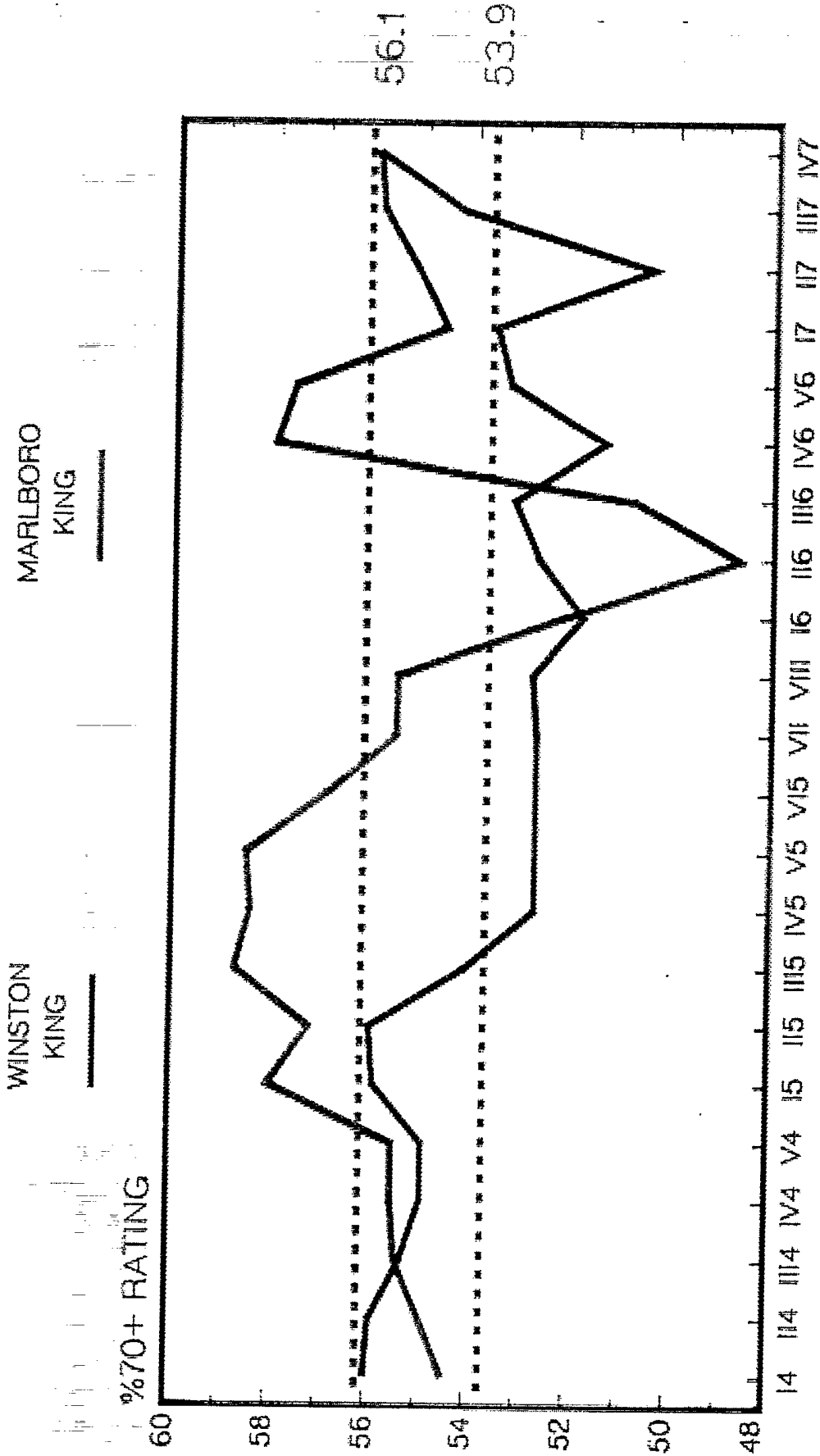
During the initial processing of the ammoniated flue-cured for lead market production a phenomenon termed browning/charring was observed. Internal R&D research indicated that the ammonia application rate was a critical factor in this tobacco darkening. Internal testing has indicated that ammonia application reduced to 6.2 #/1,000 versus the current 9.6 #/1,000 will minimize the risk of browning and maintain the positive taste perceptions of the new product.

R&D recommends that the new WINSTON King product be expanded to national distribution as per original schedule. It is further recommended that the ammonia application rate be reduced to 6.2#.

Production Start	10/03/88
D.T.S.	01/02/89

Revised: 08/24/88

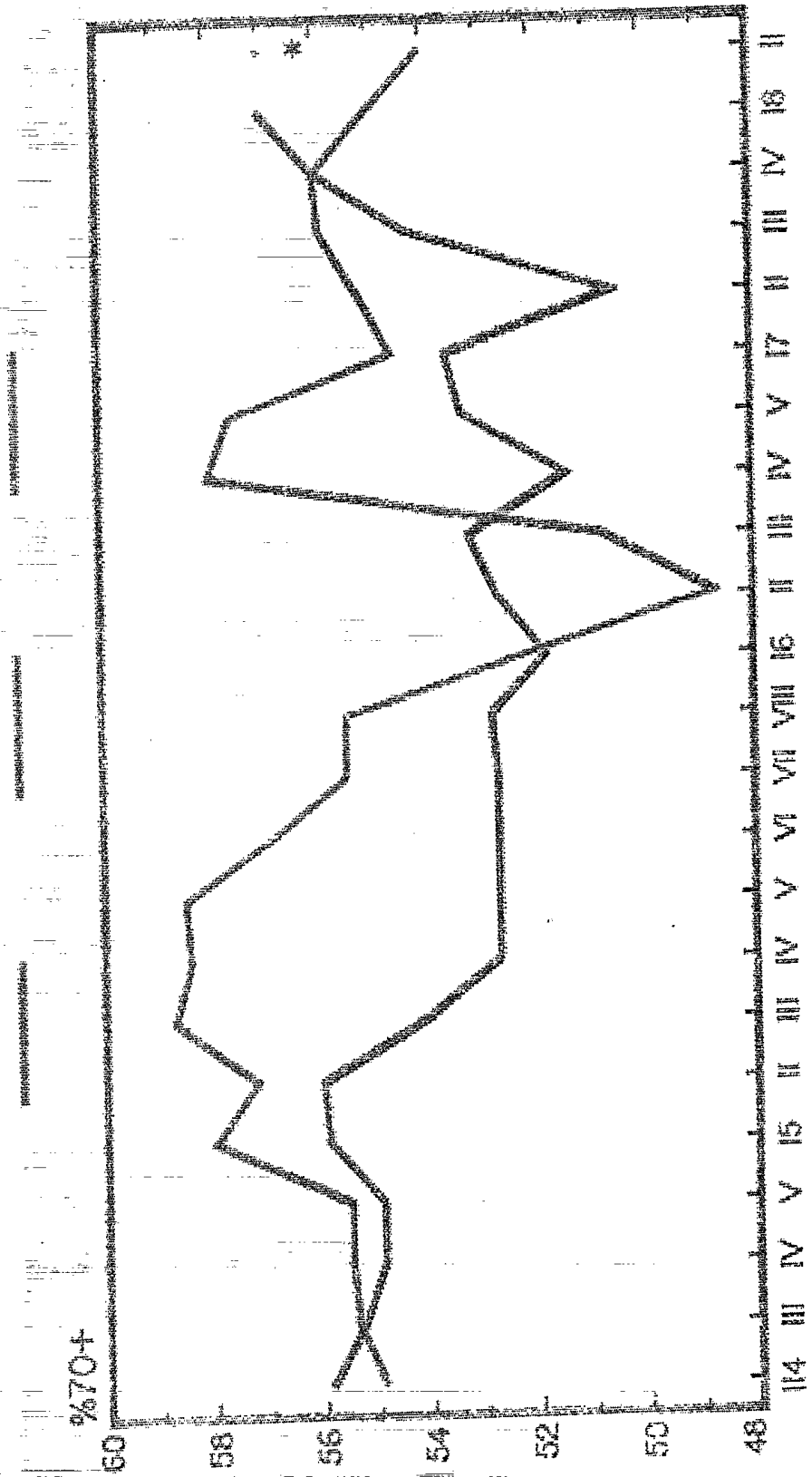
WINSTON KING COMPETITIVE TESTING COMPETITIVE - CUMULATIVE WAVE



WAVE I 1984 - WAVE IV 1987
 NEXT WAVE DUE 2/21/88

WINSTON KING COMPETITIVE TESTING COMPETITIVE - CUMULATIVE WAVE

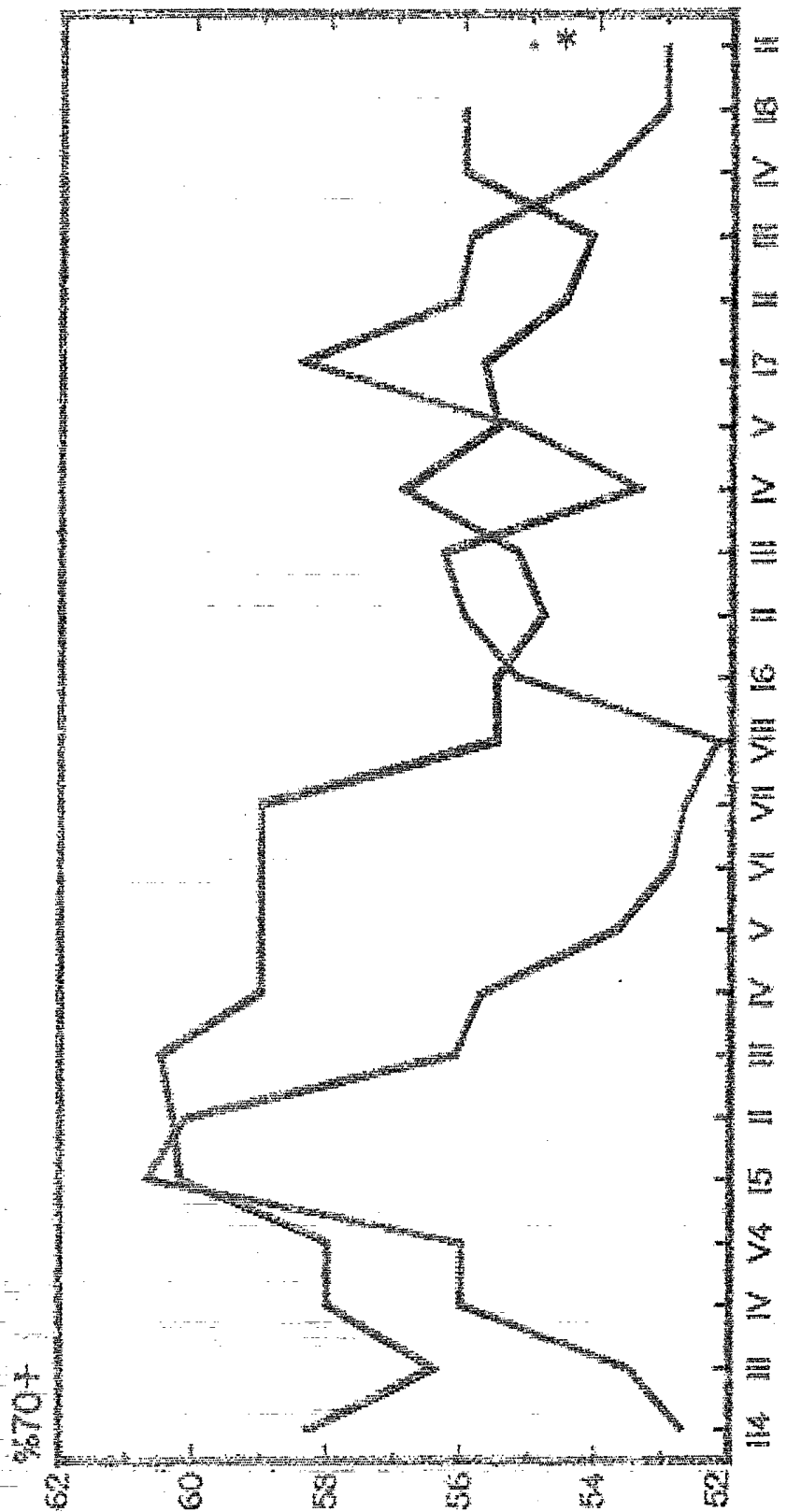
WINSTON KING MARLBORO KING IMPROVED WKS



WAVE I 1984 - WAVE II 1988 * Mfg Confirmation Score Of Improved Product Implemented 3/14/88
 NEXT WAVE DUE 8/29/88

WINSTON KING COMPETITIVE TESTING FRANCHISE -- CUMULATIVE WAVE

WINSTON KING MARLBORO KING IMPROVED WKS



WAVE II 1984 -- WAVE II 1988
NEXT WAVE DUE 8/29/88

* Mfg Confirmation Score Of Improved Product, Implemented 3/14/88.

WINSTON KING
LONG TERM DEVELOPMENT PROGRAM

OVERALL OBJECTIVE

**IDENTIFY AND IMPLEMENT PRODUCT IMPROVEMENTS TO
WINSTON KING THROUGH FUNDAMENTAL ADVANCES IN
BLENDING, FLAVORING, CONSTRUCTION, AND APPLICATION
OF NEW TECHNOLOGIES.**

WINSTON KING

DEVELOPMENT OBJECTIVES

SHORT TERM

IDENTIFY AND IMPLEMENT A PRODUCT WHICH REPRESENTS A SIGNIFICANT IMPROVEMENT TO CURRENT WINSTON KING.

- MORE STRENGTH
- MORE TOBACCO TASTE
- MAINTAIN SMOOTHNESS
- IMPROVE AFTERTASTE

LONG TERM

IMPLEMENT SYSTEMATIC DEVELOPMENT PROGRAMS WHICH WILL RESULT IN THE ACHIEVEMENT OF SUPERIOR PERFORMANCE VERSUS MARLBORO KING AMONG THE TARGET SMOKER GROUP.



FULL FLAVOR DEVELOPMENT WINSTON KING



BLENDING

INCREASED BURLEY
KON ELIMINATION
BURLEY AND G7
LEVEL OPTIMIZATION
REDUCED PACK
MOISTURE
BLEND NICOTINE
OPTIMIZATION

FLAVORING

CASING REMOVAL
ALTERNATE HUMECTANTS
FLAVOR EXPLORATORY

CONSTRUCTION

MICRO LASER
TIPPING
HEAVY BASIS WEIGHT
CIGARETTE PAPER
CONFIGURATION
OPTIMIZATION

**NEW
TECHNOLOGY**

AMMONIATED
FLUE-CURED
G7XG9
HEAT-TREATED
BURLEY AND FLUE-CURED
BLENDED EXTRACT
G7
AMMONIATED EXTRACT
G7

**COMPETITIVE
ANALYSIS**

COMPETITIVE PRODUCT
ANALYSIS
COMPETITIVE CONSUMER
ANALYSIS

KEY
DEVELOPMENT COMPLETE
DEVELOPMENT ACTIVE

CAST SHEET

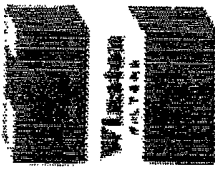
HUMAN SMOKING
BEHAVIOR



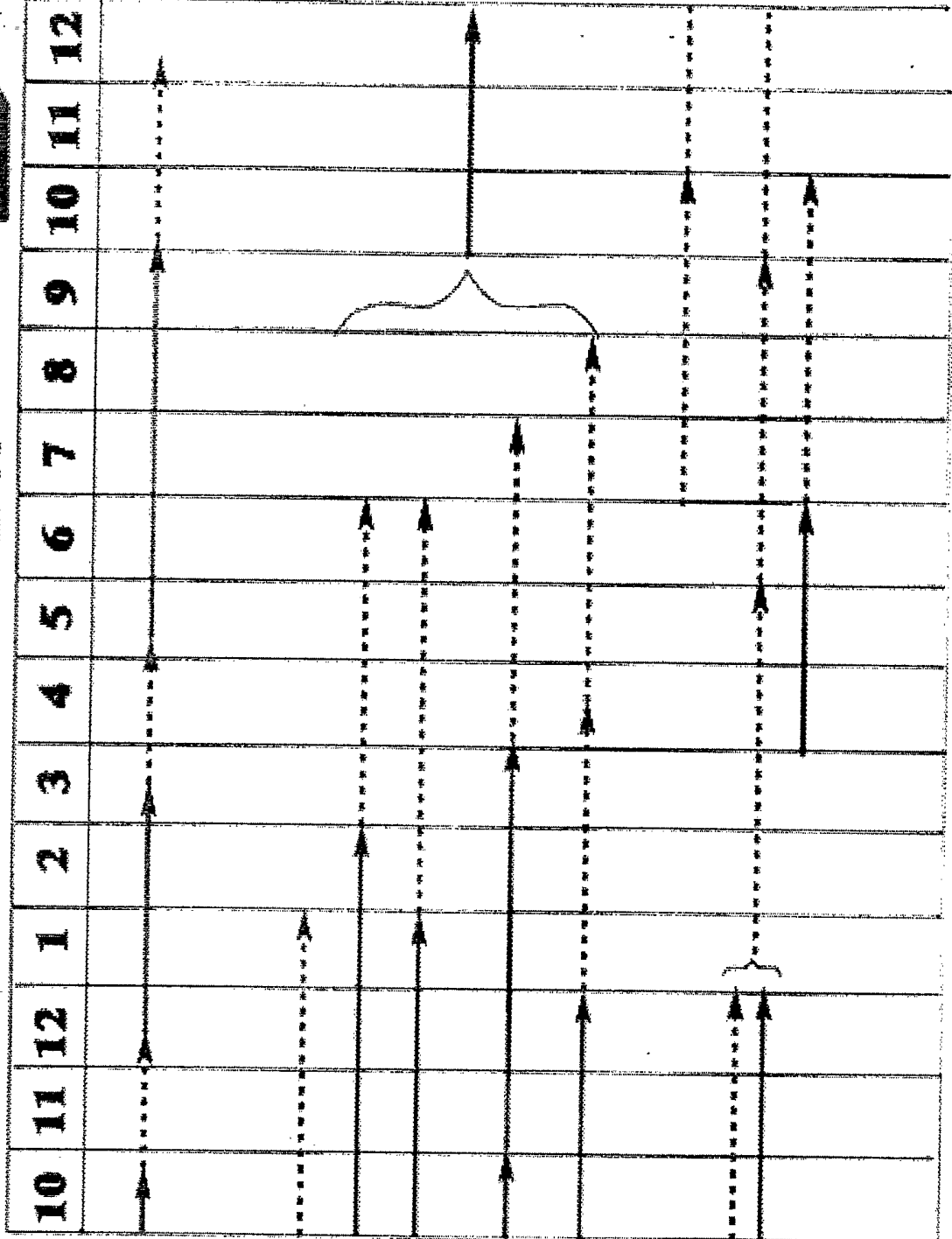
Development SED/PGT
 R&D Confirmation
 M&P Confirmation
 M&P Confirmation
 Lead Market
 National Introduction

SED
 M&P
 M&P
 Prod'n
 Prod'n

Full Flavor Brand Development
 WINSTON King Size



1988



Finalized 02/88

WINSTON KING

BLENDING EXTRACT G7

R. S. Turlington/G. W. Wallace

- RESULTS FROM A DESIGNED WKS PGT STUDY SHOWED THAT BLENDED EXTRACT G7 (AMMONIATED AND NON-AMMONIATED) POSITIVELY AFFECTS STRENGTH AND TOBACCO TASTE.
- NO FURTHER FULL FLAVOR TESTING IS PLANNED UNTIL FFLT TESTING IS COMPLETE AND DECISION IS MADE TO CAPITALIZE.

COMPLETE 7/87

ALTERNATE HUMECTANTS

R. S. Turlington/B. M. Lawrence

- INITIAL PGT DESIGNED STUDY UTILIZED SUPERIOR WINSTON KS PROTOTYPE CT1307-C AS CONTROL. RESULTS SHOWED THAT 0% TO 100% REPLACEMENT OF GLYCERIN WITH Hystar (POLYHYDRIC ALCOHOL) HAS NO NEGATIVE EFFECT ON ACCEPTANCE OR ATTRIBUTES.
- FURTHER DESIGNED FULL FLAVOR TESTING WILL BE CONDUCTED UPON RECEIPT OF FFLT RESULTS. FFLT TESTING WILL INVESTIGATE REPLACEMENT OF PART II CASING COMPONENTS AND OTHER CURRENTLY USED HUMECTANTS FOR EFFECT ON TASTE.
- THIS TESTING WILL BE CONDUCTED UPON HRRC AND PRC APPROVAL FOR APPLICATION OF 7.5% Hystar.

COMPLETE 9/87

TIMING TBD

CONFIGURATION OPTIMIZATION

R. S. Turlington/E. C. Jones

- FFLT PGT TESTING INDICATED ACCEPTANCE AFFECTED BY DRAFT/DILUTION VARIABLES WHILE STILL DELIVERING IDENTICAL FTC 'TAR'.
- PGT OPTIMIZATION PLANNED FOR FF PRODUCTS USING DRAFT/DILUTION AS VARIABLES.

COMPLETE 4/88

RESULTS 10/88

HEAVY WEIGHT CIGARETTE PAPER

R. S. Turlington/P. S. Chapman

- INITIAL QUALITATIVE ASSESSMENT SHOWED THAT A 35 GRAM PAPER IS PERCEIVED AS HIGHER QUALITY THAN CURRENT 25 GRAM. COMPLETE 7/87
- A DESIGNED WKS SED STUDY OF A RANGE OF BASE WEIGHTS SHOWED THAT THE 35 GRAM PAPER DOES NOT NEGATIVELY AFFECT TASTE. COMPLETE 9/87
- NEXT STEPS INCLUDE PGT TESTING OF 30 AND 35 GRAM CIGARETTE PAPER ON FF AND FFLT PRODUCTS. TIMING TBD

HUMAN SMOKING BEHAVIOR

W. A. Needs

- CONDUCT PILOT STUDY TO FACILITATE THE MOVE OF THE HSB METHODOLOGY FROM THE LAB STAGE TO LARGE SCALE TEST STAGE. COMPLETE 1/88
- IDENTIFY BLEND AND FILTRATION SYSTEM FOR DESIGN PRODUCTS WITH A RANGE OF CIGARETTE DRAFT AND BLEND NICOTINE. COMPLETE 1/88
- CONDUCT DESIGNED TESTING IN FOUR GEOGRAPHICALLY DISPERSED CITIES TO DEFINE CONSUMER WANT GROUPS AND CORRELATE OBJECTIVE AND SUBJECTIVE REACTION TO PRODUCT DELIVERY CHANGES. RESULTS 10/88
- HSB RESULTS WILL BE UTILIZED TO DETERMINE DEVELOPMENT DIRECTION/PLANS.

AMMONIATED EXTRACT G7

R. S. Turlington/G. W. Wallace

- BASED ON INTERNAL SED SCREENING RESULTS A DESIGNED WKS STUDY WAS FIELDIED FOR PRODUCT GUIDANCE TESTING. RESULTS INDICATE THAT G7AE IS A VIABLE REPLACEMENT FOR G7A. COMPLETE 3/88

AMMONIATED EXTRACT G7 (CONT).

- BASED ON ABOVE PGT RESULTS AND CAPITAL AND PRODUCT AR APPROVAL, PGT OPTIMIZATION TESTING MAY BE CONDUCTED AS A REPLACEMENT FOR G7A. RECENTLY IMPLEMENTED WKS UTILIZES AMMONIATED FLUE-CURED, AND AN INVESTIGATION TO DETERMINE A POSSIBLE COMBINATION OF AMMONIATED G7 AND AMMONIATED FLUE-CURED WILL BE MADE FOR POSSIBLE ATTRIBUTE IMPROVEMENT. RESULTS TBD

VARIABLE G7 EXTRACT LEVELS

R. S. Turlington/G. W. Wallace

- INTERNAL SCREENING WILL BE DONE TO DETERMINE NOTICEABLE DIFFERENCE OF VARYING EXTRACT LEVELS. RESULTS 9/88
- OPTIMIZATION OF DIFFERENT EXTRACT LEVELS BASED ON ABOVE LEARNING. RESULTS TBD

CAST SHEET

R. S. Turlington/T. J. Porter

- INTERNAL SED SCREENING OF 10 SHEETS TO ASSESS EFFECTS ON TASTE CHARACTERISTICS. RESULTS 8/88
- CONDUCT FF AND FFLT DESIGNED PGT SCREENING OF 1 OR 2 SHEETS. RESULTS 11/88
- BASED ON PGT SCREENING RESULTS CONDUCT PGT OPTIMIZATION TESTING FOR WINSTON KING. RESULTS 3/89

FLAVOR EXPLORATORY

R. S. Turlington/B. M. Lawrence

- INTERNAL FLAVOR DEVELOPMENT IS COMPLETE USING TWO SUPERIOR WKS PROTOTYPES CT1307-A AND C. COMPLETE 12/87
- QDA RESULTS OF THE NEW FLAVOR FORMULATION FOR CT1307-A SHOWED THAT MOUTH SENSATION AND AFTERTASTE COULD BE REDUCED WITHOUT NEGATIVELY AFFECTING STRENGTH AND TOBACCO TASTE. COMPLETE 1/88
- INTERNAL TESTING WILL BE CONDUCTED BASED UPON IMPROVED WKS TO ACHIEVE LONG-TERM OBJECTIVE OF SUPERIORITY VERSUS COMPETITION. RESULTS 10/88

HEAT TREATED BURLEY AND FLUE-CURED

R. S. Turlington/G. W. Wallace

- BASED ON INITIAL PGT AND SED TESTING, R&D HYPOTHESIZED THAT HEAT TREATED BURLEY COULD ENHANCE TOBACCO TASTE AND STRENGTH OF SUPERIOR WKS PROTOTYPE CT1307-C. COMPLETE 6/87
- DESIGNED SED TESTING USING CT1307-C (HIGH BURLEY/NO CASING) EVALUATED HEAT TREATED BURLEY AND FLUE-CURED SEPARATELY AND IN COMBINATION. RESULTS SHOWED NO EFFECT ON ANY TASTE PARAMETER. COMPLETE 12/87
- FFLT RESULTS SHOWED SIGNIFICANT EFFECTS OF HEAT TREATMENT WITH CASING AND HIGHER LEVELS OF HEAT TREATED FLUE-CURED. COMPLETE 2/88
- HEAT-TREATED AMMONIATED FLUE-CURED WILL BE INVESTIGATED, WITH ANALYSIS OF CHEMICAL REACTIONS DONE PRIOR TO INTERNAL SCREENING. RESULTS TBD



WINSTON KING
 CONFIRMATION TEST RESULTS
 CT-01307-C

% 70+ ACCEPTANCE
 MARLBORO MALES 21-34
 FRANCHISE 18+
 (EX. FEMALES 50+)

Product	Marlboro Males 21-34	Franchise 18+ (Ex. Females 50+)
ORIGINAL CT-01307-C	56	NOT TESTED
MANUFACTURED PRODUCT CT-01425-A	55	51
WINSTON KS WAVE 7/86 - WAVE 4/87	54	56
MARLBORO KS WAVE 7/86 - WAVE 4/87	56	54

ATTRIBUTE PERFORMANCE

VERSUS ORIGINAL CT-01307-C

CT-01425-A MAINTAINED TOBACCO TASTE AND ACHIEVED MORE STRENGTH.
VERSUS WINSTON KING

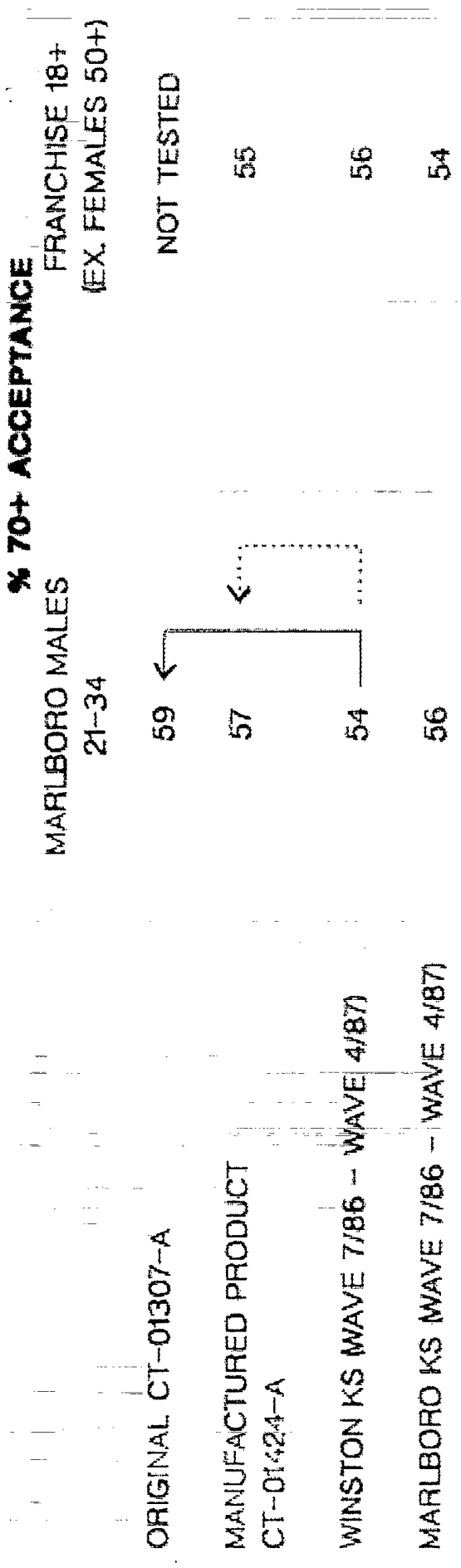
CT-1425-A MAINTAINED SIGNIFICANT ADVANTAGES ON KEY ATTRIBUTES
 OF MORE STRENGTH AND TOBACCO TASTE

AMONG FRANCHISE SMOKERS

CT-01425-A WAS PERCEIVED AS HAVING SIGNIFICANTLY LESS
 TOBACCO TASTE AND LESS SMOOTHNESS.



WINSTON KING
 CONFIRMATION TEST RESULTS
 CT-01307-A



ATTRIBUTE PERFORMANCE
VERSUS ORIGINAL CT-01307-A

CT-01424-A ACHIEVED PARITY ON ALL ATTRIBUTES.

VERSUS WINSTON KING

CT-1424-A MAINTAINED SIGNIFICANT ADVANTAGES ON KEY ATTRIBUTES OF MORE STRENGTH AND TOBACCO TASTE

AMONG FRANCHISE SMOKERS

CT-01424-A MET THE DEVELOPMENT OBJECTIVE OF NO SIGNIFICANT LOSS VERSUS WINSTON KS ON ACCEPTANCE OR KEY ATTRIBUTES.

3/8/88

BRAND PROTOTYPE TESTING STATUS

WINSTON KS

<u>Prototype I.D.</u>	<u>Description</u>	<u>Mailout</u>	<u>Results</u>	<u>Competitive</u>	<u>NFO Scores</u>	<u>Franchise</u>	<u>Next Steps</u>
MKS:	o In market			57		56	
MKS:	o In market			55		53	
CT-942-C	o High nicotine o Reduced G7A o No Part II Casing o No top dressing o No filter flavor	4/7/86	5/26/86	58		55	o Phase II complete o Phase III NFO complete (CT-01016-A) Mailout: complete Results: complete
	o CT-1016-A Post Production (942-C)	8/25/86	10/13/86	53		58	o R&D Remake complete (CT-01046-A) Mailout: complete Results: complete
	o CT-01046-A R&D Remake (942-C)	8/25/86	10/13/86	54		56	o 2-month aged product Mailout: complete Results: 11/24/86
CT-942-B	o XG FF Box Translation	4/7/86	5/26/86	53		52)
CT-942-D	o Undiluted MKS Modified Casing	4/7/86	5/26/86	51		53)
CT-942-A	o MKS Blend w/.5% Dark-fired Tobacco	4/7/86	5/26/86	50		54) No Implementation of Products

Prototype I.D.	Description	Mailout	Results	NFO Scores		Next Steps
				Competitive	Franchise	
CT-942-E	o High Nicotine Vanillin top-dress.	4/7/86	5/26/86	41	39)) No Implementation of Product
CT-969-G	o 1:1 Burley: Flue- cured ratio	6/9/86	8/4/86	47	48	
	o Chocolate/0-150 top dressing					
CT-987-B	o WKS blend with G13-23 o Vanillin/0-150 top dressing	6/9/86	8/4/86	53	49	
CT-987-C	o High nicotine blend o Threshold top dressing	6/9/86	8/4/86	44	50	
CT-987-D	o High nicotine blend o 8% Glycerin o Threshold top dressing	6/9/86	8/4/86	47	48	
CT-987-E	o High nicotine blend o 8% Glycerin o No top dressing	6/9/86	8/4/86	55	56	
CT-973	o WKS/G13-23	6/2/86	7/21/86	55	58	o Implementation Timing TBD
CT-01007	o Tobacconville Level II Qualification	7/21/86	9/8/86	55	N/A	
CT-1023-A	o Increased burley o No part II casing	7/28/86	9/15/86	55	58	
CT-1023-B	o Puffed Turkish	7/28/86	9/15/86	57	53	



Prototype I.D.	Description	Mailout	Results	NFO Scores		Next Steps
				Competitive	Franchise	

CT-1023-E	o WKS Blend o Chocolate/Vanillin top-dressing (CPS)	7/28/86	9/15/86	49	49	
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Additional Testing:

CT-1125 Wave V (2 slots)						
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CT-1125-C	o Puffed Turkish o Remake of 1023-B	11/24/86	1/6/87	53	55	Increase tobacco taste
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CT-1023-C	o Modified XG Blend o 2X Burley Level	11/24/86	1/6/87	53	58	Increase strength and tobacco taste
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CT-1307-A	o Ammoniated flue-cured	5/11/87	6/22/87	59	N/A	o Confirmation testing in Mfg. of CT-1307A & CT-1307C.
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CT-1307-B	o Increased Delivery o Increased Turkish	5/11/87	6/22/87	56	N/A	o Products to be fielded to increased base size of competitive smokers.
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CT-1307-C	o 2X WKS Burley Level o No Part II Casing	5/11/87	6/22/87	56	N/A	o Franchise performance will also be assessed.
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o Pending poitive results, implementation timing of one of the prototypes will be in the 1st Qtr., 1988.

CT-01424-A	o Manufacturing confirmation of CT-01307-A: Ammoniated flue-cured	10/19/87	12/1/87	57	55	o CT-01307-A will be implemented into a 10% lead market beginning 3/14/88. National production is scheduled to begin 10/3/88.
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NFO Scores

Prototype I.D.	Description	Mailout	Results	Competitive	Franchise	Next Steps
CT-01425-A	o Manufacturing confirmation of CT-01307-C: High burley/no casing	9/21/87	10/26/87	55	51	(Data from both R&D and Mfg. confirmation tests for CT-01307-C will be used to refine the current translation protocol. Additionally, CT-01307-C is being used as the development base for CAMEL Filter.
CT-01473-A,B,C	R&D confirmation of CT-01307-C: high burley/no casing	11/2/87	12/7/87	55	N/A	