

# customer's guide

2009



hrvatski duhani



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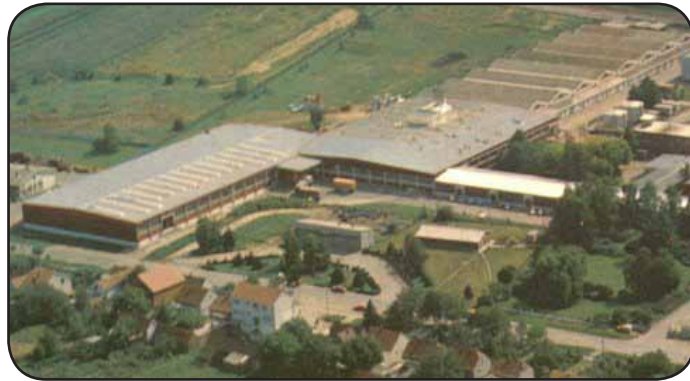
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# Historical



Hrvatski Duhani d.d. is the leading buyer, packer and dealer of Flue Cured and Burley tobacco in Croatia.

In Croatia production of flue-cured Virginia started in 1958 on suitable sandy soils of North Croatia, in the area between Donji Miholjac and Durdevac, to satisfy the requirements of the Croatian tobacco industry.

In 1969 Croatian tobacco producers recorded a crop of 5.000 tons. In 1970s, the production process was modernized by introduction of bulk barns.

Strung tobacco leaves were not suspended from sticks any more as it was the practice in traditional barns.

This resulted in reduced labour, which created conditions to increase production.

Increase in FCV tobacco production had been continuously recorded by 1980.

Application of new scientific knowledge and introduction of domestic tobacco hybrids (Podravina, Zagreb, Drava) which replaced the previous Golden Cure tobacco led to an increase in total tobacco production.

This and larger area grown with tobacco

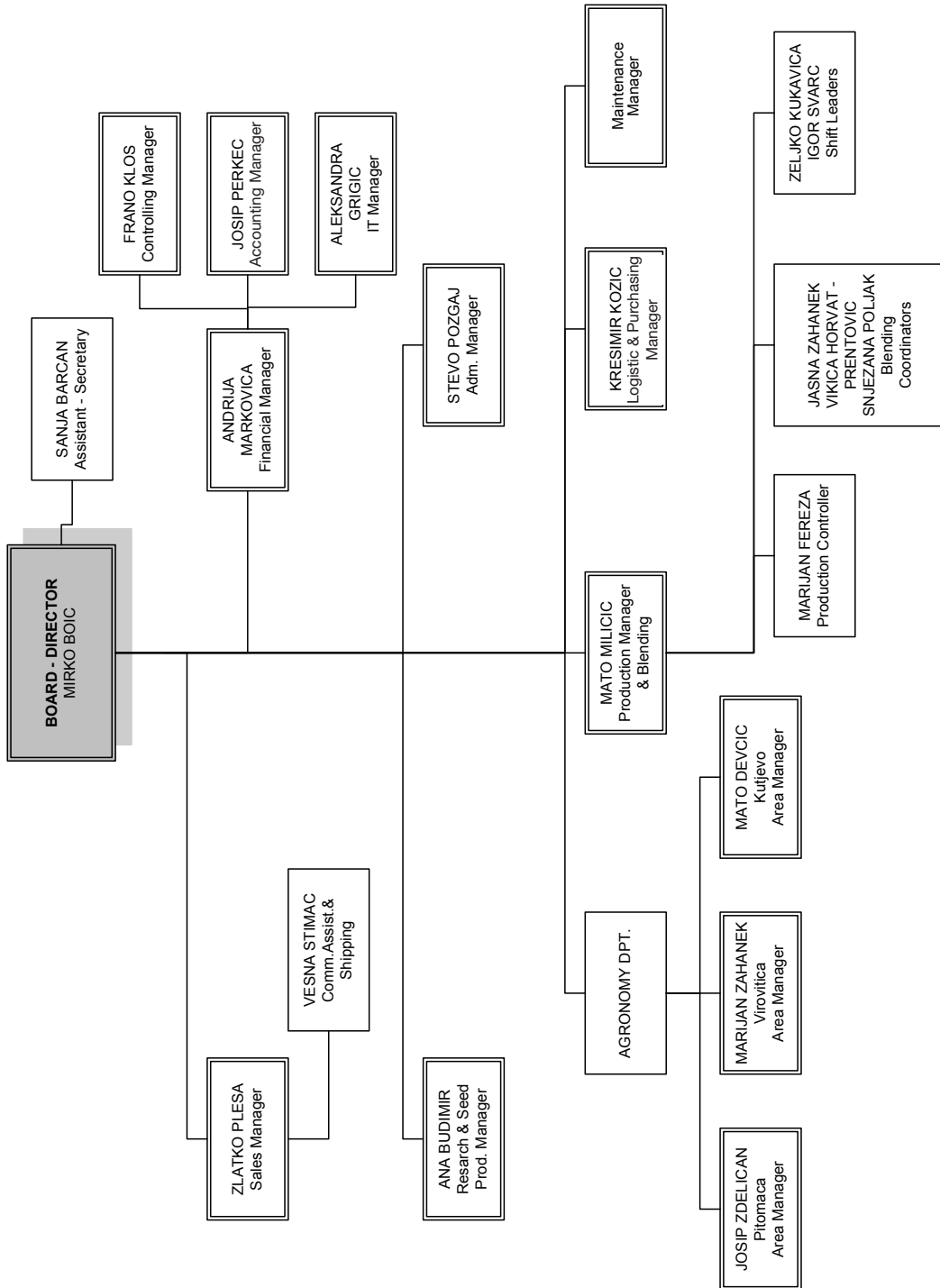
improved acre yield.

In 1986 Croatia produced 21,499 tons of FCV tobacco.

Today, Croatian tobacco production (90%) is organized as a part of Adris group Rovinj under the name of Hrvatski Duhani d.d..



# Organizational Structure



# Leaf Production

## Tobacco Growing Cycle:

### Production of seedlings

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

### Transplanting

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

### Curing

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

### Buying

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

### Processing

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

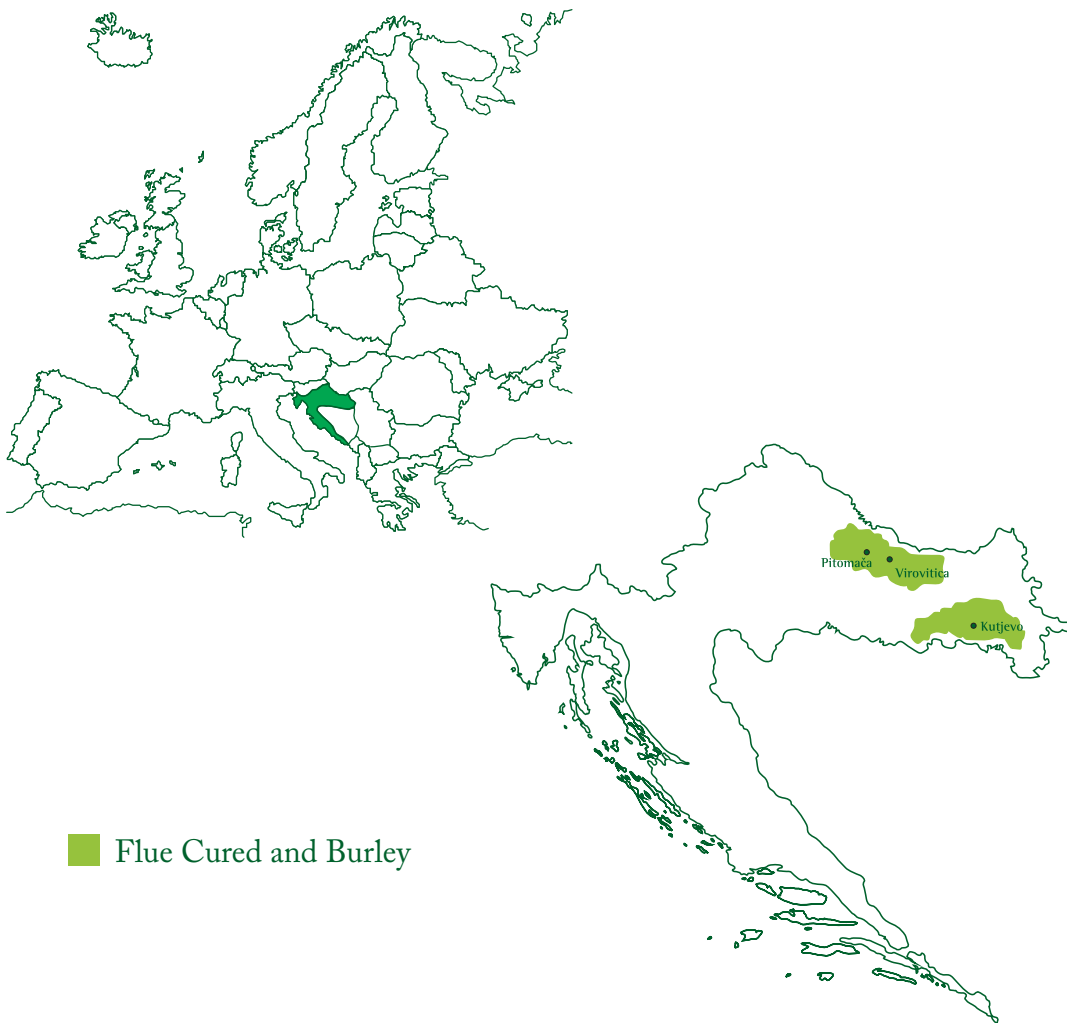
- Flue Cured
- Burley

## Leaf Growing Areas

Hrvatski Duhani d.d. consist of three tobacco production areas (Kutjevo, Pitomaca, Virovitica).

There are two main FCV varieties produced by Croatian Tobaccos – DH17 (75%), DH27 (17.5%) and others (7,5%). In Burley production, there is one variety in use - BH4

100% of tobacco seedlings are produced by float - tray system. Both tobacco types are processed in Virovitica.

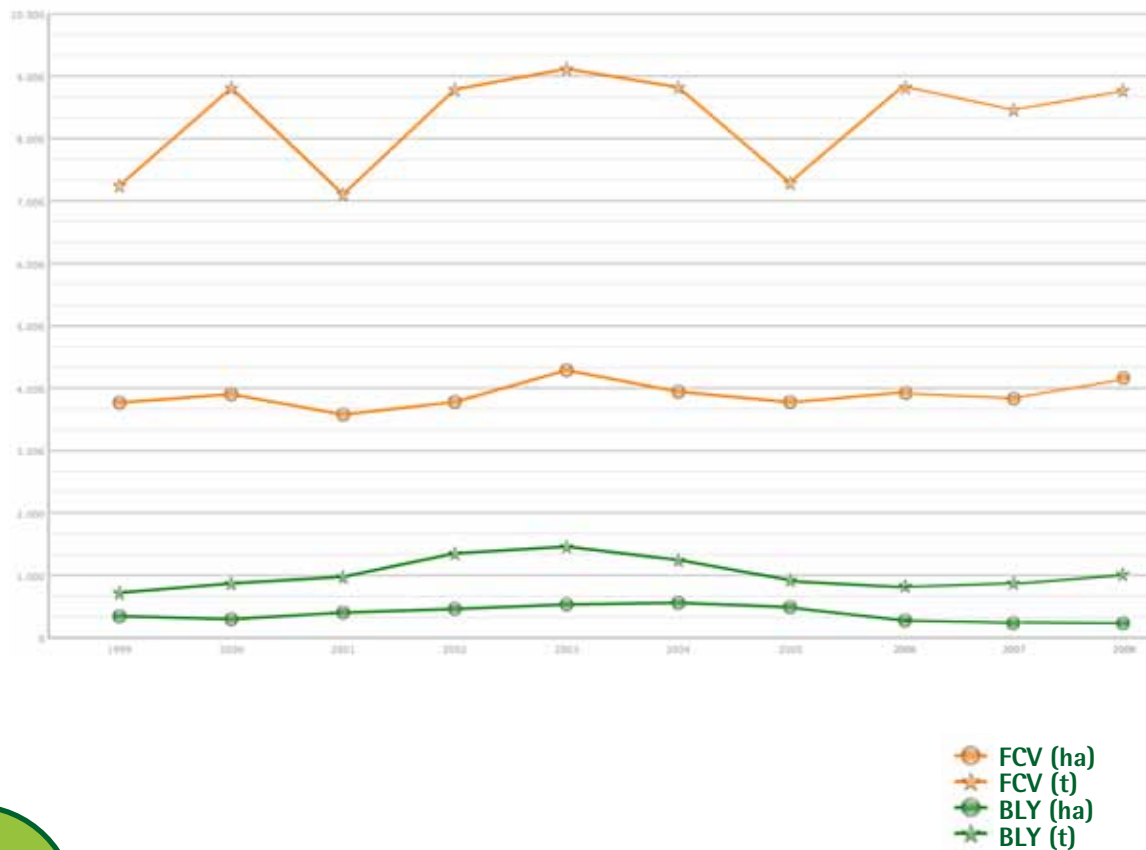




# Tobacco production over the year

Tobacco production by types in 1999 – 2008 period.

YEAR	FCV (ha)	FCV (t)	BLY (ha)	BLY (t)
1999	3.769	7.247	345	720
2000	3.904	8.811	299	872
2001	3.574	7.105	404	977
2002	3.779	8.787	461	1.354
2003	4.288	9.118	534	1.462
2004	3.942	8.820	559	1.248
2005	3.777	7.290	490	925
2006	3.968	8.898	337	890
2007	3.904	8.596	345	832
2008	4.019	8.843	341	910





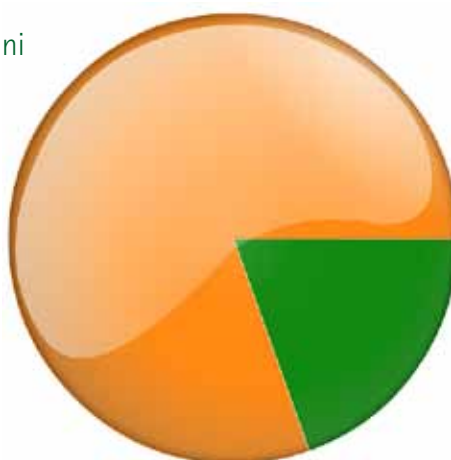
# 2009 Leaf Production

Croatian 2009 Crop (Projection)  
FLUE CURED AND BURLEY TOBACCOS.

2009 Crop Hrvatski Duhani d.d. Field Operations (Projection)

	FCV	BLY
Contracted (ha)	4,003	363
Contracted growers	580	621
Average production per grower (t)	16,15	1,72
Average production per grower (ha)	6,90	0,58
2009 crop green production (t)	9,366	1,068

Hrvatski duhani  
80%



Others  
20%

Total FCV Production in Croatia.....11,866 tons  
HRVATSKI DUHANI FCV Production..... 9,366 tons

Total BLY Production in Croatia.....1,168 tons  
HRVATSKI DUHANI BLY Production ..... 1,068 tons

# Croatian Tobacco Export

Croatian tobaccos are sold on the local market and abroad.

	Crop (YEAR)										
	1998.	1999.	2000.	2001.	2002.	2003.	2004.	2005.	2006.	2007.	2008.
Export (t)	1,950	1,984	2,886	40	1,216	3,170	4,214	2,287	3,287	3,816	3,501



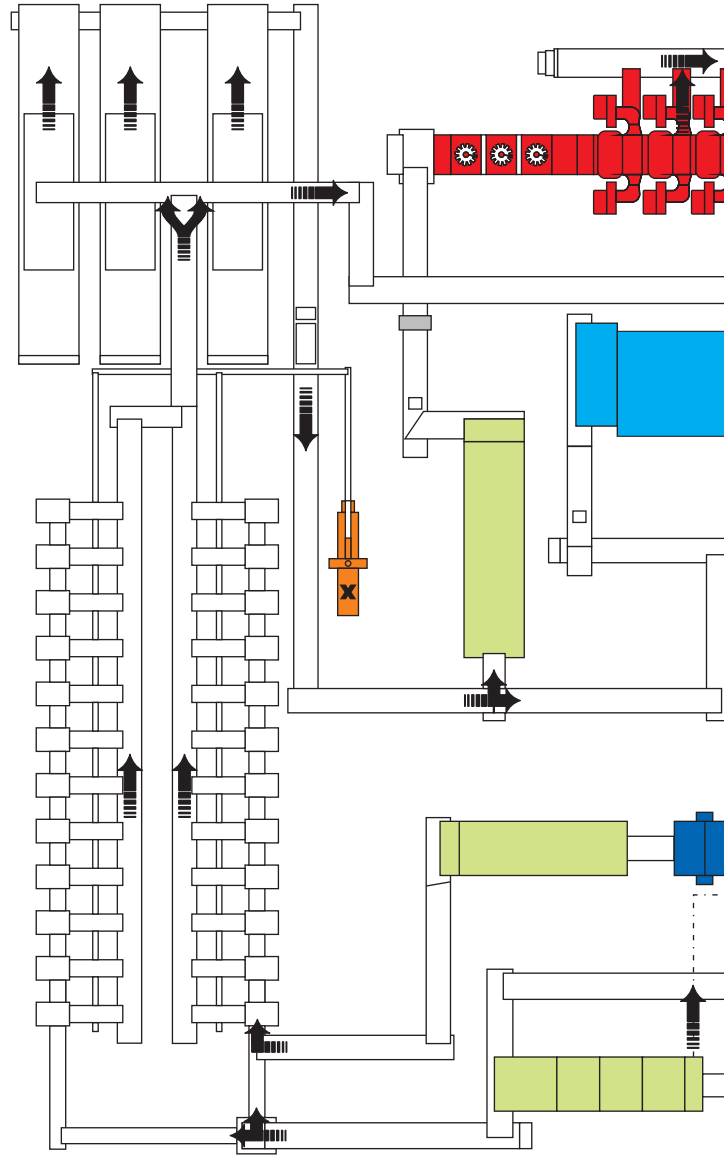
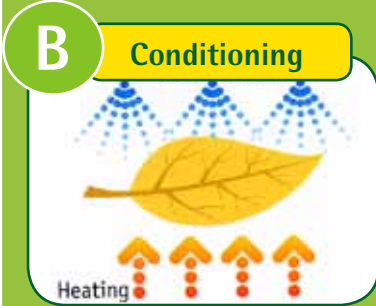


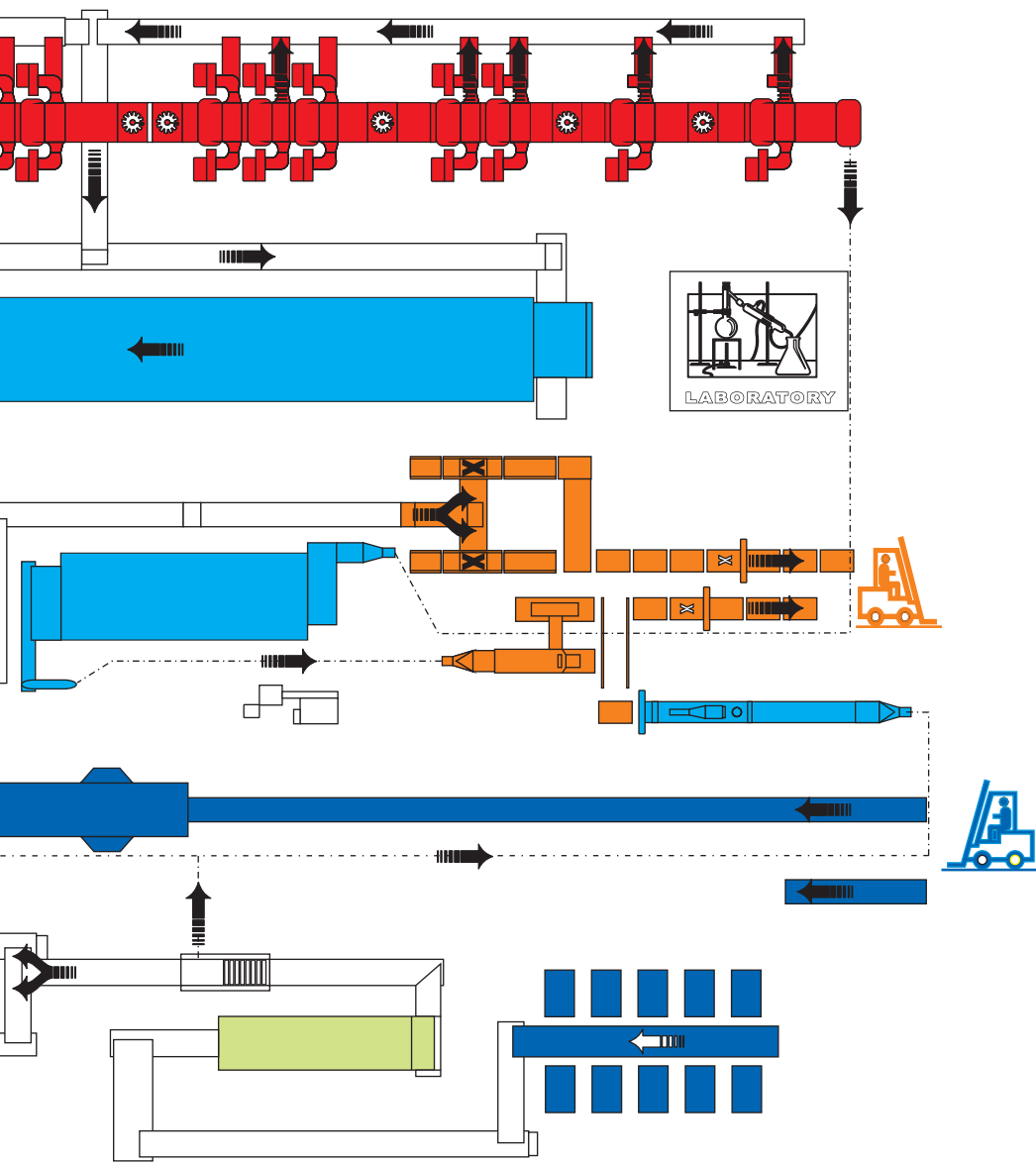




# Processing line layout

## Tobacco Processing Flow





# Virovitica factory

## Green input capacity:

FCV average	7.000 t/Hour
BLY average	4.900 t/Hour

## Green storage

Total available space:	18.000 m <sup>2</sup>
Capacity:	10.000.000 Kgs

## Packed Storage:

Total available space:	6.200 m <sup>2</sup>
Capacity:	7.000.000 Kgs

## Blending:

Blending table (line 1)	10 positions. No tipping capability
Blending table (line 2)	Slicer (Schiff & Stern)

## Conditioning and Picking

Roller (for dust and scraps removal)	
Sand reel (possibility by-passing)	1 unit (Cardwell)
Picking Tables	24 units (Cardwell)
Leaf silos	3 units x 3 tons
Primary Conditioning Cylinder (line 1)	Ø 2,4m x 9m - 1 unit (Jedinstvo)
DCC (Direct Conditioning Cylinder) (line 2)	Ø 1,8m x 6m - 1 unit (Schiff & Stern)
Second Conditioning Cylinder	Ø 1,8m x 9m - 1 unit (Godioli & Bellanti)
Automatic moisture control at the cylinders	

## Threshing line

### First stage

Threshers	3 units x 96" (EVANS Mac Tavish)
Baskets	D 2" or 2 1/2"
Air Separators	Multisep. 4 units x 96" (EVANS Mac Tavish)
Shakers	1 unit x 72" x 144" (EVANS Mac Tavish)
Shakers	2 units 60" - 122" x 144" (EVANS Mac Tavish)

### Second stage

Threshers	2 units x 72" (EVANS Mac Tavish)
Baskets	D 1 3/4" or 2"
Air Separators	Multisep. 3 units x 72" (EVANS Mac Tavish)
Shakers	2 units x 60" - 122" x 144" (EVANS Mac Tavish)

### Third stage

Threshers	1 unit x 72" (EVANS Mac Tavish)
Baskets	D 1 1/2" - 2"
Air Separators	Multisep. 2 units x 72" (EVANS Mac Tavish)
Shakers	1 unit x 48" - 180" (EVANS Mac Tavish)

### Fourth stage

Threshers	1 unit x 60" (EVANS Mac Tavish)
Baskets	D 1 1/2"
Air Separators	Multisep. 1 unit x 60" (EVANS Mac Tavish)
Shakers	1 unit x 48" - 180" (EVANS Mac Tavish)



### Fifth stage

Threshers	1 unit x 60" (EVANS Mac Tavish)
Baskets	Round holes ¾-1"
Air Separators	Multisep. 1 unit x 60" (EVANS Mac Tavish)
Shakers	1 unit x 78" - 160" (EVANS Mac Tavish)
Stem sizing shaker with flaggy stem recirculation	1 unit 36" x 122"

### Lamina Dryer Proctor

Automatic temperature control	
Automatic Moisture control (Infrared at the discharge of the redryer)	
High Pressure Misting System	
Drying Sections	5 compartments updraft 1 compartment downdraft
Cooling Section	1 compartment
Reordering Sections	1 compartment downdraft 1 compartment updraft
Press	2 units (Fishburne)
Stems Dryer	Proctor
Drying Sections	3 compartments downdraft
Cooling Section	1 compartment
Scraps Dryer	Screw type

### Description of Utilities

Incoming Power	(2 unit - transformer 1000 KVA - 380V/50Hz)
Boilers	(3 units - capacity : 5 tons steam / Hour per boiler at 9 bars)
Compressors	(3 units - capacity of 5,67m <sup>3</sup> /min)

### Quality Assurance Equipment

Degradation	
Standard Degradation Shaker	1 unit (Comas)
Coresta Degradation Shaker	1 unit (Cardwell)
Stem Tester	1 unit (Cardwell)
Ro-tap	1 unit

### Moisture

Mill	2 units (Screens: 5mm; 3mm; 1mm)
Brabender	2 units
Hearson Oven	1 unit
Instalab 600	1 unit (Dickey John)
Water cooler for oven samples	1 unit
Malcam	1 unit (Malcam)

### Chemical Analysis

Spectrophotometer	1 unit Aurius - 2000
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# Social Responsibility Policy

Hrvatski duhani d.d. has accepted and agreed to perform their duties and act in a Socially Responsible manner with a commitment to provide and maintain a business environment that is in the best interest of, and fair to Shareholders, Management, Employees and their families, Customers, Suppliers, Local Communities and Society at Large.

Hrvatski duhani d.d. aims to apply the best international standards of practice in all aspects of its operations that relate to:

- Sustainable economic development
- Preservation of the environment
- Development of social/human rights
- The health and safety of its employees and non-company
- Personnel on company premises
- Development of employees and their families.

As a good corporate citizen the company is committed to:

- Maintain close and mutual respect and cooperation with our employees, clients and suppliers.
- Comply with all applicable national and international laws and regulations of Croatia affecting our business activities.

- Commitment to quality, continuous improvement through training of our workforce and where practicable of our suppliers, in order to maintain the highest
- Standards of quality and service to our customers and the highest level of safety at work.
- Contribute to the elimination of the use of child labour in the tobacco growing sector.
- Support the development of environmental programs that minimize energy consumption and assure waste management, clean up campaigns, treatment and reuse of wastes, water conservation and reduced emissions.
- Support the development of community based programs that promote improvements in the areas of health, education and economics

The company expects all of its employees, and non-employees on company premises, to fulfil their part of these responsibilities by being alert at all times for any possible unsafe or unsatisfactory acts or situations and ensuring directly or through others that these conditions are eliminated.

# General Information

## Virovitica

Virovitica is a town with a long history, situated on the important traffic crossroads, at the place where the picturesque mountain Bilogora turns into the rich Pannonian valley, at the place where Slavonia embraces Podravina and where both kaikavian and stokavian dialects are heard.



The written history confirms the Duke Koloman's granting of number of privileges to the citizens of the 'big town of Virovitica' ('magna villa Wereucha') in 1234. In 1242 King Bela IV issues right here the Golden Bull, a charter granting the status of a free royal town to Zagreb.

A new era of prosperity and development in all walks of life is dated in late 17<sup>th</sup> century after the retreat of the Turks. The Franciscan monastery and St. Rocchus Church with its magnificent interior, one of the most beautiful examples of the baroque church art in continental Croatia and Pejačević Palace, undoubtedly an impressive example of the baroque profane architecture, represent today a proof of a remarkable 18<sup>th</sup> century development.

In 1804 the count family Pejačević builds a baroque classicistic castle surrounded by a well-proportioned park and dominating

the centre of the town. The 19<sup>th</sup> century building of the First Croatian Savings-Bank was completely built in accordance with the Viennese building standards having very elegant eclectic characteristics.

Nowadays Virovitica has a population of 22.000 inhabitants and is the seat of the Virovitica-Podravina County. It offers a wide range of free time activities to its citizens and visitors such as attractive museum exhibitions, theatre performances, concerts, sports events, gastronomic events, traditional festivities and other events.

Not very far away from the town people can enjoy the beauty of the hills covered with vineyards offering a unique panoramic view on the vast valleys of Podravina and Slavonia or the natural atmosphere of the



perfectly preserved fish ponds of Virovitica which are ideal for recreation and fishing.

The whole area from the forest slopes of Bilogora to the river Drava, which forms a natural frontier with the Republic of Hungary, offers outstanding opportunities to hunters because it is rich in a variety of big and small game.



# CITY MAP OF VIROVITICA



Gradsko smetište

ZAGREB

HUNGARY

1. COUNTY HALL
2. CITY HALL
3. THEATRE
4. PALACE PEJACEVIC
5. HOSPITAL
6. ST. ROCCHUS CHURCH
7. SHOPPING CENTER
8. RAILWAY STATION



OSIJEK



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