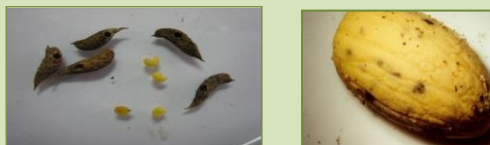


5. Seed Health Testing - International Rules for Seed Testing, ISTA, Chapter 7

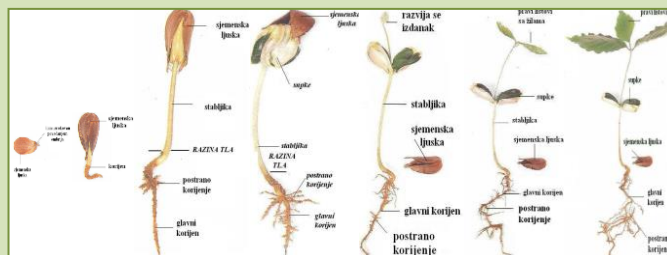


6. Biochemical Test for Viability - International Rules for Seed Testing, ISTA, Chapter 6, The Topographical Tetrazolium Test



Seed quality is testing on seed samples.
The sampling procedure is described in ISTA Rules and ISTA Handbook on Seed

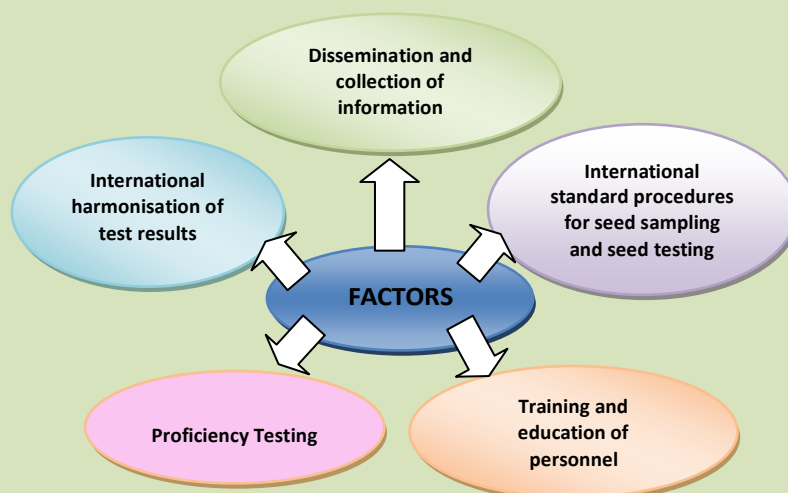
Development of plants – from seed to seedling



Number of analysed seed samples from 1999 do 2015

Period	Conifers	Broadleaves	Total
1999 - 2010	620	16166	16786
2011 - 2015	440	7068	7508

FACTORS AFFECTING SEED QUALITY IN NATIONAL AND INTERNATIONAL TRADE



CROATIAN FOREST RESEARCH INSTITUTE

HRVATSKI ŠUMARSKI INSTITUT

Department for Laboratory Analysis
Laboratory for Testing Seed Quality



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ACCREDITED LABORATORIES OF CROATIAN FOREST RESEARCH INSTITUTE

Croatian Forest Research Institut has accredited two testing laboratories within the Department of laboratory Analysis – Laboratory for Testing Seed Quality (LIS) and Laboratory for Physical and Chemical analysis (LFKI). Department for laboratory analysis covers the area of: quality testing of forest seeds, physical and chemical properties of soil, water, and plant material, genetics of forest trees and testing of harmful entomofauna and fitofauna.

The scope of accreditation is testing of forest seed and plant material (forest biomass). Six test methods are accredited, four in the Laboratory for Testing Seed Quality and two in Laboratory for Physical and Chemical analysis.

Laboratory for Testing Seed Quality is:



- a reference laboratory for testing forest seed quality in Republic of Croatia
 - a member of the International Seed Testing Association – ISTA
- Engaged in scientific, developmental and high professional research related to the forest seeds:
- research of morphological and physiological properties of seeds of important economic tree species (oak, fir, spruce, maple, wild cherry, other wild fruit trees and others)

- investigation of factors affecting the quality of the seeds during storage
- investigation and development of new rapid methods for testing quality of forest seeds

SEED QUALITY includes the following seed properties

Genetic purity
Physical purity
Germination
Viability
Moisture content
1000 seed weight

WHERE, HOW, AND WHY THE SEED QUALITY ARE TESTED?

Where?

- in analytical laboratory different seed properties are tested: analytical purity, germination, viability, moisture content, of 1000 seed weight and seed health
- on field trials the genetic purity of seed, health and uniformity of seed lots are determined

How?

- by using standardized methods for testing seed quality prescribed by International Seed Testing Association (ISTA Rules) in laboratories adequately equipped to perform analyses
- methods for evaluating the seed quality are actually a tool that supports the seed production programs worldwide

Why?

- to ensure customers high- quality and certified seed

- to accelerate moving in national and international seed trade

METHODS FOR TESTING SEED QUALITY

1. Determination of moisture content -International Rules for Seed Testing, Chapter 9 – **Accredited method**



2. Weight

Determination - International Rules for Seed Testing, ISTA, Chapter 10: - **Accredited method**



3. The Purity Analysis - International Rules for Seed Testing, ISTA, Chapter 3: - **Accredited method**



4. The Germination Test - International Rules for Seed Testing, ISTA, Chapter 5: - **Accredited method**

