Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
First Regular Session

House Bill No. 2658

Introduced by REP. IAN PAUL L. DY

AN ACT
ESTABLISHING THE PHILIPPINE CORN RESEARCH INSTITUTE AND
APPROPRIATING FUNDS THEREOF

EXPLANATORY NOTE

This bill seeks to establish the Philippine Corn Research Institute (PhilCorn) that shall unify, coordinate, fund, implement, and strengthen all corn research and development (R&D) as well as manpower training and extension of technologies on corn and corn-based farming systems for the production of more food, feeds, forage, industrial materials, and bioenergy purposes, including those subsequent (or rotation) crops that are grown after rice in rainfed farms and in dryland and marginal upland farms in the country.

The national government affirms its goal of ensuring the country’s food, feeds, forage, and bioenergy security through the development of a modern, highly productive and efficient, and competitively secured agriculture. The success in this new and comprehensive venture of modernizing corn production and its industrialization would tremendously help improve and advance people’s employment and livelihood opportunities and thus reduce poverty and hunger, particularly those in the rural areas. Therefore, it is important to identify our target areas and to consider as well the vulnerable upland and dryland agro-ecosystems where many of the resource-poor farmers, particularly the corn farmers, grow their food and feed crops, including poultry and livestock.

Corn is the second most important national food crop next to rice. It serves as the staple food of 20 percent of the Philippine population. Furthermore, corn is the main component of up to 75% of formulated feeds for livestock, poultry, and aquaculture fishery. Corn is grown mainly
in rainfed farms after rice is harvested, and in upland and dryland farms, including steep hillsides, in over 2.5 million hectares, mostly in Mindanao, Cagayan Valley, Ilocos Region, Central Luzon, Central Visayas, and Palawan.

The current national grain yield in various ecological regions is still low, ranging from 0.5 to 2.5 tons per hectare in resource-poor areas although yields can be as high as 6 to 10 tons for hybrid corn varieties in few favorable farm environments, suggesting that there is bright prospect in further increasing corn yields in specific farm sites. Consequently, the country needs to improve the overall productivity among farmers not only to achieve self-sufficiency but also to stabilize food security and nutrition among our rural population. We can also target the export markets over the medium- and long-term view.

The demand for both white corn as human food and yellow corn as animal feeds and for industrial uses have been increasing rapidly because of the high demand of our growing human population, the expanding livestock and poultry industries, and the rapid growth of the emerging industrial and bioenergy program (RA 9367, The Biofuels Act of 2006) designed to augment imports of fossil-based fuel as energy source.

Low crop yields and household income of majority of corn farmers in the rainfed, upland, and dryland farms are still far below those obtained in experiment stations because of the following factors and situations:

1. Limited access of farmers to and adoption of genetically improved seeds;
2. Inadequate information and use of integrated nutrient and pest management system;
3. Slow adoption of crop rotation technologies;
4. Ineffective drought mitigation approaches;
5. Inadequate mechanization of field operations from land preparation to harvesting and drying, and
6. Large portion of the corn-growing areas are hilly land with highly variable soil fertility

Many farms are prone to drought due to erratic rainfall pattern and therefore irrigation facilities should be installed.

Of the major crops other than rice that support the national economy, corn and corn-based farming systems (including crops planted after corn such as grain legumes) are the most neglected in research support with an allocation of less than 0.05 percent of the gross value added (GVA) compared to rice at 0.25 percent, coconut at 0.30 percent, and sugarcane at 0.5 percent.
The Philippines has more than three million hectares of upland and dryland areas inhabited by about five million households, most of whom are very poor especially those in Southern Mindanao, Central and Eastern Visayas, parts of Western Luzon, Palawan, and the Bicol Region.

Recurrent droughts and typhoons, environmental degradation due to short-duration and erratic rainfall, recurring El Nino and climate change phenomenon, soil infertility and inaccessibility of high quality crop seeds aggravate the low productivity and untold sufferings of poor corn farming communities.

The millions of degraded lands and infertile soils in the upland and dryland areas without irrigation facilities, however, comprise an untapped potential resource for the growing of drought-tolerant corn and corn-based cropping systems such as, for example, sorghum and grain legumes for food and feeds. However, when properly managed, these crops will help ensure household food security and sustainable farm productivity.

In the Philippines, there are well established research institutes devoted to major crops and disciplines such as: rice, coconut, sugarcane, fiber and abaca, cotton, silkworm, tobacco, root crops, biotechnology, plant breeding, crop protection, farming systems, irrigation, carabao, dairy, fishery, hogs, farm mechanization and post-harvest, and other strategic commodities and disciplines.

However, there is no such similar institute, unfortunately, that is devoted to crops such as corn and corn-based farming systems that includes crops such as sorghum and grain legumes that are important as food, feed, forage, and fuel.

Therefore, it is time to establish the Philippine Corn Research Institute (PhilCorn).

Globalization and climate change require that the country must enhance its capability to continuously develop cutting-edge technology and agricultural innovations that will enable corn farmers to become prosperous by increasing the productivity and quality of their produce through modern farm planting practices, harvesting, processing, and packaging techniques for the domestic and global markets.

From these observations, it is clear that there is an urgent need to establish a proactive, modern agricultural research and extension institute – The Philippine Corn Research Institute (PhilCorn) -- that is designed and committed:

1. To unify, coordinate, fund, implement, and strengthen all national and farm-level efforts on Research & Development, Extension (RDE) for corn and corn-based farming systems for food, feeds, forage, and fuel;
2. To hasten technology sharing activities that will improve the livelihood of resource-poor farming communities and empower them to cope up with low yields owing to frequent occurrences of drought, warming temperatures, land degradation, and other risks arising from environmental calamities and climate changes;

3. To insure adequate and stable supply of quality corn products for domestic and foreign markets, and

4. To improve the economic condition and income of farmers in the upland and dryland regions of the country.

In view of the foregoing information and in order to dramatically reduce poverty and improve people’s employment and livelihoods, particularly those in the rural areas, and to ensure the country’s food sufficiency and energy security, approval of this bill is highly and earnestly recommended.

REP. IAN PAUL L. DY
3rd District of Isabela
Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
First Regular Session

House Bill No. 2658

Introduced by REP. IAN PAUL L. DY

AN ACT
ESTABLISHING THE PHILIPPINE CORN RESEARCH INSTITUTE AND
APPROPRIATING FUNDS THEREOF

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

SECTION 1. Short Title. This Act shall be known as the Philippine Corn Research Institute Act.

SEC. 2. Philippine Corn Research Institute. The Philippine Corn Research Institute, hereinafter referred to as PhilCorn, is hereby established as a body corporate attached to the Department of Agriculture (DA) to modernize the corn industry and consequently improve the livelihood and household income of resource-poor corn farmers in the rainfed, upland, and dryland farming communities and to empower farmers with the tools of science and technologies so that they can cope up with problems of low yields, droughts, floods, land degradation, global warming, and other risks arising from environmental and climate changes.

SEC. 3. Objectives. The objectives and goals of this Act are as follows:

a) To develop and implement a strong, dynamic, and innovative farmer-centered and need-based national corn research and development, technology sharing, training, and extension programs;
b) To strengthen the national capacity for corn research and extension, modernize production and utilization as well as industrial processing of corn and corn-based crops, diversify harvests through sequential crops to sustain soil health and fertility and thus enhance long-term higher productivity and household income;

c) To improve the livelihood and economic conditions of small-scale and resource-poor farmers who are growing corn after rainfed rice as well as in upland and dryland farming ecosystems;

d) To work closely with regulatory agencies such as BPI (i.e. National Seed Quality Control Laboratory, NSQCL; Quarantine Division, and National Seed Industry Council, NSIC), Bureau of Agriculture and Fisheries Standards (BAFS), and private stakeholders (i.e. PhilMaize) and NGOs in the collection, conservation, and utilization of endemic or traditional corn varieties as well as in the experimentation, planting, and monitoring of corn hybrid and genetically engineered varieties;

e) To develop and implement sustainable and environment-friendly corn and corn-based farming systems in the vulnerable and marginal areas like sloping terrains and evaluate those areas where crops other than corn may be more appropriate to grow;

f) To gather and provide reliable, up-to-date data to guide policy makers with regard to corn improvement and development, import and export volumes, and develop strong linkages among stakeholders in promoting the national corn industry;

g) To expand employment opportunities through corn and corn-based farming systems in the rural areas, and ultimately promote the general welfare of the people through higher efficiency and profitability in production, industrial products development, processing, and marketing;

h) To initiate and undertake such other related programs in consultation and partnership with the DA-Bureau of Agricultural Research (DA-BAR), the DA regional research centers (DA-RIARCs), the Philippine Council for Agriculture, Aquatic Resources, Forestry, and Natural Resources Research and Development (PCAARRD), State Colleges and Universities (SCUs), and the private sector.

SEC. 4. **Principal and Regional Offices.** The PhilCorn shall have its principal office at the **Isabela State University** or at any other suitable site as the Board of Trustees may decide. It may also establish other offices, branches, satellite offices, or subsidiaries in any geographically suitable region in the Philippines that are major producers of corn and as may be necessary or proper for the accomplishment of its purposes and objectives.
SEC. 5. Duties and Functions. The PhilCorn shall exercise the following duties and functions:

a) Unify, Plan, fund, conduct, monitor, and evaluate corn research, development, and technology promotion in different scientific and technological fields and programs, including but not limited to the following thrusts: (1) germplasm collection, conservation, breeding, and biotechnology; (2) natural resources management, watershed conservation, drought adaptation and mitigation; (3) corn engineering, farm mechanization, and postharvest management; (4) pest surveillance, early warning system, integrated pest management, and biological control methods; (5) socio-economics, impact assessment, and policy advocacy; (6) technology packaging and demonstration, promotion and deployment, training and communication; (7) processing and industrial-chemical products development; and (8) corn-based farming systems, farm management improvement, and experiment station development.

b) Unify, lead, fund, and coordinate a national network of corn and corn-based farming systems research and extension agencies, centers, and stations located in the different agro-ecological regions of the country where corn is a major crop;

c) Develop technologies suitable for the rainfed, upland, and dryland agro-ecosystems that will maximize the productivity and quality of locally grown corn and corn-based crops while also reducing production costs and ensuring long-term and sustainable corn and corn-based production systems through genetic improvement and environmental resources and conservation measures;

d) Enhance income of corn farmers by developing suitable corn-based crops and livestock farming systems as well as crop rotations where applicable; value-adding corn technologies including on-farm verification, processing, packaging, marketing, and promotion of economically viable technologies as well as entrepreneurial skills, giving emphasis on those aspects necessary for group endeavors of small-scale farmers, cooperatives, and seed growers;

e) Develop databases needed in the identification and preparation of necessary policy recommendations towards efficient, highly productive and competitive corn industry and corn-based farming systems through appropriate socio-economic measures and public-private sector mobilization and participation;

f) Organize and develop strong training and communication programs for corn and corn-based farming systems scientists, research managers, and extension specialists to enable them undertake effective and timely technology promotion of packaged technologies among clusters of farmers and corporate growers by utilizing modern extension systems
such as information, education, and communication (IEC) technology and participatory social mobilization procedures;

g) Publish and disseminate research and extension findings and recommendations through scientific journals, books, technical and extension bulletins, videos, and other print and communication channels.

SEC. 6. Corporate Powers. The PhilCorn shall exercise the following corporate powers:

a) Exercise all the powers of a corporation under the general corporation law, in so far as such powers are not inconsistent with the provisions of this Act;

b) Enter into, make and execute contracts and agreements of any kind or nature, and to sue and be sued in its corporate name;

c) Borrow funds and obtain loans from all sources, whether local or foreign and whether government or private, to help finance its research programs and its capital and operating expenditures, or support to farmer entrepreneurial activities;

d) Invest in, purchase or otherwise acquire, own, lease, mortgage, pledge, sell, assign, convey, exchange, encumber, borrow, or otherwise deal in real and/or personal properties of whatever kind and nature, or any interest therein, including shares of stock, bonds, notes, securities, and other evidences of indebtedness of natural or juridical persons, whether domestic or foreign and whether government or private;

e) Receive and acquire from any person, government and private entities, whether foreign or domestic, or from any corporation, partnership, association or other entity such characters, licenses, franchises, rights, privileges, concessions, assistance, grants, donations, loans, and contributions consisting of such properties, real or personal, including funds and valuable effects, as may be useful, necessary or proper to finance its research, capital and operating expenditures or otherwise carry out its purposes and objectives, and to administer the same in accordance with the terms and agreement consistent with its purposes and objectives; and

f) Acquire from the government, whether national or local or from any person, corporation, partnership, association or other entity, such characters, franchises, rights, privileges, assistance, financial or otherwise and concessions as may be conducive to and necessary or proper for the attainment of the purposes and objectives of PhilCorn.
SEC. 7. **Board of Trustees.** The Board of Trustees, hereinafter referred to as the Board, shall exercise all the corporate functions and powers of the PhilCorn and shall control all its businesses, activities, and properties that are relevant to the goals and functions of the Institute.

a) The Board shall be composed of the Secretary of Agriculture or his designate as ex-officio Chairperson and fourteen (14) members from the following agencies and sectors: Executive Director of the Philippine Council for Agriculture, Aquaculture, Forestry, and Natural Resources Research and Development (PCAARRD) of the Department of Science and Technology (DOST) who will act as Co-Chairperson; Director of the Bureau of Agricultural Research (BAR) who will act as Vice-Chairperson; Regional Executive Director (RED) representing the DA Regional Field Offices (DA-RFOs); Undersecretary of the Department of Budget and Management (DBM); Director of the Agriculture Division of the National Economic and Development Authority (NEDA); Director of the DA-Philippine Council for Agriculture and Fisheries (DA-PCAF); two (2) University Presidents from the State Universities and Colleges (SUCs) representing major corn producing and corn-based agriculture regions; four private sector representatives, namely: one each from among the national outstanding corn farmers, farmers' organizations or federations (Philippine Maize Federations, Inc.), private companies engaged in corn research and seed production, and the livestock/poultry industry; and two (2) distinguished scientists from the public and private sectors. The credentials of private sector representatives shall be evaluated and scrutinized by competent members of the Board.

b) The term of office of the members of the Board who are heads or officials from their respective agencies or institutions shall be co-terminus with their respective appointments; Provided, however, That the term of office of the Regional Executive Director who represents the DA-RFOs where corn is a major crop and the four (4) private sector representatives shall be for five years without prejudice to a reappointment for another five years based on merits and excellent performance in the Board. The PhilCorn Executive Director shall serve as Secretary of the Board. All government officials in the Board shall serve as ex-officio members and shall not receive any salary or compensation.

c) The Chairperson, Co-Chairperson, Vice-Chairperson, and members of the Board shall receive per diem, as the Board may determine, for each Board meeting actually attended; Provided, however, That such members shall also be entitled to reimbursable transportation and representation allowances in going to and coming from board meetings and in transacting official business for the Institute.

d) The Board shall meet regularly at least once (1) every quarter or as often as the exigencies of the service demands. The presence of the Chairperson, Co-Chairperson or
Vice-Chairperson and at least seven (7) members of the Board shall constitute a quorum and the majority vote of the members present, there being a quorum, shall be necessary for the adoption of any resolution, rule, regulation, decision or any other act of the Board.

SEC. 8. **Powers and Functions of the Board.** The PhilCorn Board shall exercise the following powers and functions:

a) To adopt by-laws and promulgate policies, rules, regulations, and procedures for the efficient and effective operations of the Institute;

b) To define and guide in the formulation of the vision, mission, strategy, and research-extension priorities, general plans and programs, and guidelines for the proper operation and management of the PhilCorn in accordance with its purposes and objectives and in line with research planning and monitoring policies and procedures of PCAARRD and BAR;

c) To approve the PhilCorn's organizational structure and staffing pattern, operation and capital expenditures, and financial budget prepared in accordance with its corporate plans;

d) To approve the plantilla and salary ranges, benefits, privileges, bonuses, scholarship and manpower development, housing facilities and support to staff, and other terms and conditions of service, including promotion systems similar to those in the State Universities and Colleges (SUCs) and the Department of Science and Technology (DOST) as well as life and medical insurances and retirement schemes or benefits for all officers and employees of the PhilCorn, upon recommendation of the Executive Director;

e) To appoint, promote, transfer, suspend, remove or otherwise discipline any subordinate officer or employee of the Institute, upon recommendation of the Executive Director;

f) To create such committee or committees and appoint the members thereof, as may be necessary and proper for the management of the PhilCorn or for the attainment of its purposes and objectives; and

g) To exercise such other powers and functions and perform such other acts as may be necessary or proper for the attainment of the purposes and objectives of the PhilCorn, or as may be delegated by the Secretary of Agriculture or any competent authority through the Board of Trustees.

SEC. 9. **Executive Director and Other Officers.** The PhilCorn shall be headed by an Executive Director who shall be appointed by the President of the Philippines, upon
recommendation of the Board of the Trustees (BOT), based on the findings and recommendations of a Search Committee duly organized and commissioned by the Board for such purpose.

a) The Executive Director shall serve for a term of five (5) years, subject to a one term extension of five (5) years for very meritorious performance, or a maximum total of ten (10) years without further extension for any reason whatsoever; Provided, however, That there shall be a reserved plantilla position of the same salary rate for the outgoing Executive Director, if he is previously a holder of a plantilla position at PhilCorn and shall not yet be of retirement age at the end of his term as Executive Director; Provided, further, That the Board of Trustees, through a Search Committee duly organized at least four (4) months earlier, shall have chosen a new Executive Director who shall immediately assume office during a turn-over ceremony on the expiration date of the term of office of the outgoing Executive Director; Provided, finally, that no Officer-in-Charge shall be designated as head of the Institute.

b) The Executive Director shall be assisted by two Deputy Executive Directors, Division Heads, and Branch Station Directors or Managers as the Board may determine, to carry out the purposes and objectives of the PhilCorn.

SEC. 10. **Powers, Functions, and Duties of the Executive Director.** The Executive Director shall be directly responsible to the Board and shall have the following powers, functions, and duties:

a) To exercise dynamic leadership, create a vision, map out the mission, provide strategic direction, and undertake systematic supervision over the planning and implementation of all research, development, technology sharing programs, training and extension, upgrading of scientists and staff of the Institute and, in general, administer and direct the management and operation in a transparent and corrupt-free administration of the PhilCorn;

b) To execute all contracts, incur obligations, acquire and dispose of assets, and deliver documents on behalf of the PhilCorn within the framework of the authority delegated by the Board;

c) To implement and enforce policies, decisions, orders, rules, and regulations that are promulgated or adopted by the Board;

d) To arrange for the conduct of an External Program and Management Review (EPMR) by a Panel of Experts every 5 years or as often as necessary in order to understand the output
and impact of PhilCorn programs to the farmers and stakeholders of the corn industry and to provide guidance to management in charting the future of the institute; and

e) To exercise such other powers and functions and performs such other duties as may be authorized, assigned, or delegated by the Board.

SEC. 11. **Technical Advisory Committee.** A Technical Advisory Committee (TAC), organized and approved by the Board, shall assist the Executive Director, Division heads, Program Directors, and Branch Station Directors or Managers in pursuing interagency activities and participation of the national RD&E network. The TAC shall be composed of not more than nine (9) members, or as the Board may designate, who are heads, representatives, or scientists and experts of agencies, government or private, that are actively involved in any critical aspect of corn research, corn-based farming systems, seed quality certification, training and extension, production and processing, marketing and consumption, policy advocacy, and capacity building. TAC members may be assigned to assist specific programs, divisions, or branch stations as the services may require in achieving the goals and objectives of PhilCorn.

SEC. 12. **Services of Government Personnel.** The PhilCorn may, for the purpose of its research, development, training, and extension activities, obtain and secure the services of scholars and scientists as well as specialists in research, training, extension, and communication of any unit, experiment station, institute or center of the Department of Agriculture, University of Southern Mindanao, Central Mindanao University, Visayan State University, University of the Philippines Los Banos, Mariano Marcos State University, Isabela State University, Central Luzon State University, and other agencies and universities of the national government and foreign institutions. Those personnel of national and international reputations, from public or private institutions, shall be designated as visiting scientists and research fellows for a term of one year to five years to assist in conducting major research problems of strategic importance and consequences in pursuing the goals and objectives of the Institute. The selected personnel may be paid such honoraria or incentives acceptable to all concerned and as may be fixed and authorized by the Board.

SEC. 13. **Buildings, Facilities, and Equipment.** The PhilCorn is hereby authorized to own, acquire, borrow, lease, plan, and construct or repair buildings, laboratories, experimental farms, and other facilities as may be necessary or proper to attain its purposes and objectives. It may also utilize facilities of any unit of any cooperating SUC, the Department of Agriculture, and of the national government that is engaged, directly or indirectly, in activities that relate to agriculture, farming systems, corn production or products development of the corn industry.

a) The PhilCorn is further authorized to purchase equipment, materials and articles, either locally or abroad, as may be necessary or proper to carry out its powers and functions and attain its purposes and objectives. It shall be exempted from the payment of any and all
forms of taxes, duties, fees and charges on any and all such importation of equipment, materials, articles, and services; Provided, however, That the same are not available locally on favorable terms.

b) The PhilCorn shall be authorized to expropriate lands for corn and corn-based farming systems research and development purposes provided that just compensation is paid to the owners of the land. If the land belongs to the government or is inalienable, the Institute is granted automatic title to the land.

c) Likewise, all lands, farms, plantations, whether directly or indirectly owned, used, utilized or administered by the PhilCorn and those that it may hereinafter acquire or utilize for research, training, extension and technology demonstration, and seed production purposes shall be exempted from the coverage of the Comprehensive Agrarian Reform Law.

SEC. 14. Appropriation. The Secretary of Agriculture and the Secretary of Budget and Management are hereby authorized and directed to set aside out of the existing funds of the Department of Agriculture the amount of Four Hundred Million Pesos (P400M) as the initial fund of the PhilCorn for CY 2017 to be used for its initial operations, including provisions for salary of personnel, conduct of research and technology promotion, construction of laboratories and other physical infrastructures, purchase and development of experimental farms, and acquisition and purchase of equipment for laboratories, farm development, and offices. This initial amount shall be drawn from the DA National Corn Program, BAR appropriations for research, RP-Japan Fertilizer Grant (KR-2), Public Law PL 480 (PL480), and/or any other existing bilateral funding sources in the Department of Agriculture. Thereafter, the government contribution to the Institute's operations shall be provided for under its own Key Budgetary Inclusion (KBI) in the Annual General Appropriations Act. Furthermore, the PhilCorn Board of Trustees shall seek financial support from foreign donors such as Japan International Japan Agency (JICA), Korean International Cooperation Agency (KOICA), Australian Agency for International Development (AusAID), United States Agency for International Development (USAID), and similar institutions for the establishment and improvement of PhilCorn infrastructures, laboratory facilities, field experiment station development, and training and scholarship of qualified personnel.

The annual appropriations herein provided shall be subject to the fiscal control and management procedures provided for in Executive Order 714 of 1981. All funds, savings, grants, and income of the PhilCorn shall constitute a revolving fund, to be managed as Trust Fund, and shall be considered part of the funds automatically released to the PhilCorn.

SEC. 15. Applicability of Civil Service Laws. The PhilCorn and its officers and employees shall be subject to the Civil Service Law, rules and regulations; Provided, however,
That all technical personnel shall be selected on the basis of the highest possible standards of merit and fitness for public officials and employees, preferably those with postgraduate degrees, to be determined in accordance with such policies and guidelines as may be approved by the Board.

SEC. 16. **Auditor.** The Chairperson of the Commission on Audit (COA) shall be the Ex-Officio Auditor of the PhilCorn. For this purpose, he may appoint a representative who shall be the auditor of the PhilCorn, together with the necessary personnel to assist the COA representative in the performance of his duties.

SEC. 17. **Legal Counsel.** The Government Corporate Counsel shall be the Legal Counsel of the PhilCorn; *Provided,* however, *That* the PhilCorn may establish its own legal unit, subject to the supervision and control of the Government Corporate Counsel, to handle the day-to-day legal matters affecting the affairs of the PhilCorn.

SEC. 18. **Annual Report.** The Board shall submit to the President of the Philippines through the Secretary of Agriculture an annual report, together with the audit report on the relevant accounts, generally dealing with the activities and operations of the PhilCorn.

SEC. 19. **Separability Clause.** The provisions of this Act are hereby declared separable. If any portion hereof shall be held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the other provisions, which shall remain in full force and effect in their entirety.

Sec. 20. **Effectivity.** This Act shall take effect immediately.

Approved.