Intellectual Property Report 2013



August 2013

ISEKI & CO., LTD.

Contents

Message from the President 1
1. Guidelines for Research and Development2
2. Strategic Directions of R&D2
3. Intellectual Property Strategy 4
4. System for R&D and Intellectual Property 5
5. Implementation of Intellectual Property for Each Product (Example)8
6. Situation of Intellectual Property14
7. Awards and Recognitions 15
8. Information on Legal Actions Related to Intellectual Property 17
Corporate Data 18

Preamble in Publishing Intellectual Property Report 2013

The business foundations of the ISEKI Group are in agriculture and agricultural machinery. We are constantly endeavoring to improve the functions, performance, quality, and cost and service competitiveness of our products through our development, production, and marketing activities. Through these activities, we are working to strengthen our competitiveness in the market by differentiating our products and securing a superior position. We engage in business activities placing emphasis on intellectual property, through creative activities in core technologies of agricultural machinery, agriculture-related products and others, and securing technical rights and the use of the resultant intellectual achievements of such activities, such as inventions and creations, by strategic intellectual property activities, leading to new creation.

This Intellectual Property Report 2013 covers a wide range of related topics, including our initiatives in R&D, the creation of inventions and patent strategies, product design initiative and trademarks. It also includes the response to the globalization, features and technologies of new products, intellectual property systems, awards received for our patents and inventions, and information risks related to intellectual property.

[Cautionary Statements]

- 1. This booklet has been prepared to provide information to the public and is not intended to solicit any kind of action.
- 2. This booklet contains the results of the Company's analyses, including forward-looking statements regarding the outlook for the Company, its plans, policies, prospects, strategies, interpretations of facts, and other information related to the future. All such statements and other information are based on forecasts, assumptions, plans, and other information collected by the Company at the time of preparation of this booklet.
- 3. In preparing forecasts, with the exception of known facts, the Company makes use of certain assumptions. There are no guarantees that these assumptions are objective and accurate or will prove to be true in the future. These assumptions are dependent on technology and demand trends in Japan and in other countries, economic conditions, competitive conditions, and other factors. If these assumptions change, it is possible that matters and outcomes, other than known facts, stated in this report may differ from the statements in this publication
- 4. Data on the number of patents made public stated in this publication, the number of patents held, and other data related to intellectual property are those of Iseki Co., Ltd., and do not include data on subsidiaries or affiliates.



Message from the President

Since its foundation in 1926, Iseki Group constantly pursued the streamlining and laborsaving of agriculture as a comprehensive specialized manufacturer of agricultural machinery. During this process, Iseki Group has pioneered a great variety of innovative agricultural machinery ahead of the others and has brought them to the market.

In view of the global issues of growing population and food supply, as well as contemporary issues of food self-sufficiency and national land preservation, we are aware that the social mission of agricultural machinery manufacturers will become progressively more important. Iseki Group will continue our activities based on our fundamental philosophy of contributing to agriculture in Japan and around the world through "offering products that will give satisfaction to users".

At present, the principal business of the Iseki Group is the "development, manufacturing and sales of agricultural machinery for the rice cultivation, dry-field cultivation and others". In other areas of business, we are also engaged in aggressive business activities in both areas of hardware and software. An example of this is the provision of high quality and low priced products in support of energy saving, and low cost agriculture through the eyes of customers, as well as the proposal of useful technologies for low cost agriculture to be used by farmers. Also, in order to accelerate the promotion of global expansion, we will engage in the development of products that are compatible with the diversifying market needs and business activities, we are committed to providing active and timely disclosure of corporate information concerning our management strategies, result of activities and other matters with our customers, shareholders, investors, analysts and other stakeholders.

Iseki Group positions intellectual property as an important managerial resource, and we have reported on our R&D activities and the achievements through various occasions such as a securities report, investor relations presentations and a new product presentation.

In this Intellectual Property Report, we intend to report on the Group's basic stance of R&D, its R&D activities, and current state and the use of resultant intellectual properties. We hope this publication will provide you with a good understanding of the commitment of the ISEKI Group, which places much importance on R&D and intellectual property.



President Noriyuki Kimura



Guideline for Research and Development

In the midst of the changing environment surrounding the agricultural industry, Iseki Group holds a mission to "contribute to the society through agricultural machinery"; and each one of our technical experts is engaged in creative R&D based on the "technical spirit". By fully mobilizing our accumulated technologies, we will contribute to agriculture through providing products and service with a high level of satisfaction from the stand point of customers. We will continue to keep abreast of the agriculture industry for years to come.



With regard to the R&D investment, we are making a

deliberate investment based on a forecast of the demand and market trend in mid to long term perspectives. R&D expenditure for the consolidated fiscal year 2012 was approx. ¥4.3 billion.



Strategic Directions of R&D

In every sector of agricultural machinery technology, agricultural machinery related product technology and overseas product technology, Iseki has adopted 4 key words, "Customer Satisfaction", "Safety", "Conformability" and "Environment" as "Spirit of Manufacturing", and to promote R&D giving direction in each of the three sectors. In particular, we aim for the realization of "a rich society with sustainable development", by R&D focusing on "low cost agriculture" and "energy saving".





1. Agricultural machinery technology:

- Tractor We are engaged in the R&D of highly efficient continuously variable transmission technology, technology to improve the working environment by reducing vibration/ noise; environment -responsive technology by mounting of emission gas cleaning equipment/ fuel control, etc.; technology to enhance the traveling performance and operating accuracy that is excellent in maintenance works of rice and dry field; and management support technology of primary farmers, as well as the technology to enhance traveling and working safety, and technology to enhance operability in pursuit of universal design.
- 2) Rice transplanter We are engaged in the R&D of autonomous straight move control technology; labor saving control technology to reduce work load; technology to enhance the operability such as transmission operability and turning operability, high-speed/ high-accuracy planting technology for large scale farmers; energy saving/environmentally-conscious technology, mainly by engine control and use of electric operation; low cost agriculture support technology and labor saving technology of anterior/posterior rice planting work.
- 3) Combine harvester We are engaged in the R&D of environment-responsive technology through enhanced fuel efficiency of engine/ mounting of emission gas cleaning equipment, etc.; and technology mainly to improve the operating environment by noise reduction. Labor saving technology by enhanced sorting capacity/ threshing capacity/ enhanced grain emission speed/ enhanced grain recovery ratio, and technology to improve working safety is also included in these efforts.
- 4) Dryer and rice huller We are engaged in the R&D of drying method by energy other than kerosene, energy saving/ high-speed drying technology, etc. that will develop further the heat-recycling technology that reuse exhaust wind, as well as technology to enhance operability and technology to reduce residual rice of the rice huller.
- 5) Vegetable transplanter & processing machines Taking advantage of know-how nurtured by wet-rice technology, we are promoting integrated vegetable growing systems for seedling raising, soil preparation, transplanting, cultivation control, harvesting and preparation. We are engaged in R&D of operability/working efficiency improvement technology, low cost/labor saving technology, environment-responsive technology, support for local consumption of local products, and new crops.
- 6) Tiller / Controller We are engaged in R&D in pursuit of easy operability of tiller/controller, as well as improvement technology of safeness of the operator.
- 7) Engine We are engaged in the R&D of engine control technology which brings out optimum working efficiency peculiar to agricultural machinery, engine performance compensation technology suited for high land operations, technology of low noise/low vibration, cleaning technology of emission gas by mounting of emission gas cleaning equipment, and low fuel consumption technology by fuel injection control, etc.

2. Agricultural machinery related product technology:

We are engaged in the R&D of environment-type plant factories that is a high-tech production system for agricultural products aiming at high quality / high yielding; information technology of agricultural facilities, biomass related technology, labor saving technology of seeding/raising seedling facilities, and general-purpose technology for various species of vegetable seedling. Also, we are engaged in R&D of technology related to glucose disposal after rice polishing.

3. Overseas product technologies:

For Europe, we are engaged in R&D of tractors in pursuit of light weight/ compactness/ low cost and tractors in pursuit of enhanced travelling operability and fuel efficiency through control of continuously variable transmission, and also R&D of garden machinery in pursuit of a smooth running on slope ground.

For North America, we are engaged in R&D of enhanced performance of emission gas cleaning equipment and simple structure/ low cost tractors.

For China, we are engaged in R&D of rice transplanters, combine harvesters and vegetable growing machinery with enhanced adoptability to local crop and field conditions, as well as enhanced work efficiency, precision and labor saving, and in pursuit of low cost mainly by way of achieving higher durability to oil pressure and of working parts, as well as mechanism control technology.



For Korea and Taiwan, we are engaged R&D of tractors/ rice transplanters/ combine harvesters which are highly efficient/functional and also highly durable as the products sold in Japan.

For South East Asia, we are engaged in R&D of highly durable and low cost tractors/ rice transplanters that are adoptable to the local conditions.

Thus, we promote product development that suites market condition along with promotion of low cost designing of products in order to respond to the low price needs from overseas markets.

3

Intellectual Property of Strategy

1. Creation of inventions/Patent application strategy

We conducted an analysis in the trend of technology of our competitors, clearly defining the positioning of Iseki's core technologies, identifying the direction of the R&D of our competitors, setting the direction of our R&D themes and R&D, and making the results common information. These results include technical and planning sections in order to exploit such information as a resource to build business strategies and R&D strategies.

Also, Iseki sets technical themes based on the consensus of the entire company. This consensus includes the development and marketing sections out of core technology and promising technology and the market trend related to core technology, and we are striving for "quality" enhancement and "volume" expansion of inventions by promoting unique invention proposal campaigns employing creative methods addressed to each technical theme centering on our core technologies.

Our technical experts have strong adherence and will to invent / create, proposed inventions regarding technologies which will be put to practical use in the near future are being created actively. Proposed inventions must pass through a vigorous selection process based on our internal regulations and evaluation criteria; furthermore we aggressively apply patents by employing lseki's unique measures for efficient patent application, thus creating the construction of a patent network, promoting to ensure the priority of product development.

2. Design / Trade mark strategy



We promote stronger design protection and enhancement of Iseki's brand value by product differentiation and discrimination with our competitors through the accumulation of appealing designs as well as affectionate pet names of design rights and trade mark rights respectively.

Basis Policy for design	Attractive product which suites the operating environment. Product which gives bigger attachment in long use.
Design procedure	Confirmation of actual sites of usage, voice of the market. Analysis of the design trends and building of concept.
Development of design	Progression of Iseki's individuality (product features, product colors) Creation of fresh appeal with a contemporary feeling.
Direction of design	Appealing design which derives satisfaction from usage. Design which anticipates the future of agricultural machinery.

Iseki's philosophy for product design



Iseki's stance for trade marks

Basic understanding of pet names • Agricultural machinery is a helpmate that works together with a farmer. • Agricultural machinery which allows for familiarity and affection through daily work from land preparation, transplanting of seedlings, maintenance, harvesting and shipping.
Representative trademarks of Iseki • "SANAE" which almost became a pronoun for rice transplanter • "FRONTIER" which triggered auto threshing combine harvester, unprecedented in the world. • "GERS" represents tractor • "ERENA" represents tiller • "DOLIMATE" for rice weighing and grading machine • "NAUERU" for vegetable transplanter
Strategy ahead of its time

3. Iseki's strategy for intellectual property rights overseas

In overseas markets, Iseki is making steady efforts in securing intellectual property rights such as very strictly selected patents, design rights and trademark rights inventions which is consistent with our business strategy addressed to Asian countries including China, the U.S., and Europe.

We strive to enhance analytical precision of market trends and situation of intellectual property in each country in line with expansion of Iseki's global business activities, and to respond quickly in regard to the intellectual property in close tie-ups with divisions in charge of development and overseas operations as well as with patent attorney in each country. Furthermore, we utilize our unique overseas patent information searching system in order to evaluate the effectiveness of our company's technologies in light of the situation of intellectual property and technical trends in each country.

Thus, we apply highly effective technologies in each country, trying to secure effective rights and accumulate such rights in each country.

System for R&D and Intellectual Property





1. R&D organization chart

Iseki Group has established a system to promote R&D by exerting comprehensive strength of each development/manufacturing/sales divisions.

1) Engineering Department

As an organization to engage in R&D of each product, they strive to accumulate technology and know-how peculiar to each product. Together with the Product Planning Department which suggests product strategy and direction of the R&D based on the market trends and requests in each area, they make planning of R&S to engage in R&D to respond quickly to clients' needs both domestic and overseas.

In order to promote personal development and OJT effectively, they conduct rank-based intellectual property education according to years of experience to improve their levels. The number of proposed inventions in 2012 exceeded 21,000 and advanced technologies and innumerable high quality inventions have been generated.

2) Manufacturing subsidiaries

We will strive for creation of high quality and low cost products based on Iseki's manufacturing technology that has been nurtured for many years. We introduced an improvement proposal system with an aim to promote quality enhancement, cost reduction and man-hour reduction. The number of improvement proposals in 2012 exceeded 57,000, promoting quality enhancement and efficiency of manufacturing.

Outstanding proposals among such improvement proposals have been awarded "Award for Contributes to Creative Ingenuity" of the Minister of Education, Culture, Sports, Science and Technology in recognition of highness of the manufacturing technology. In April, 2013, "Designing of automatic straightening equipment of engine crank shaft" of Iseki-Matsuyama Mfg. Co., Ltd. was awarded, and with this, the accumulated number of award-winning of this award has reached 10 cases.

Also, based on planning/promotion/support of the Cost Structure Reform Department, they strive to attain low cost products by VE activities to study cost reduction through changes in designing/manufacturing method/part procurement method, etc.

3) Dreamful Agriculture Support Project Promotion Department

In order to realize dreamful agriculture in the midst of major changes of the environment surrounding agriculture, Iseki supports agricultural management from two aspects of agricultural machinery and farming software, and we promote support for low cost agriculture proposing profitable agriculture (agriculture with high profit margin) based on actual proof together with our sales companies.

Specifically, as Iseki's engagement in low cost agriculture support, our instructors of sparse planting farming propose "sparse planting technology" proactively that has been nurtured by Iseki for many years, as a technology which allows substantial reduction in required amount of seedlings

and production of high quality rice. In addition, we propose "high density seeding & sparse planting" which is an evolution of "sparse planting technology" that reduces further necessary amount of seedling by technology of sparse planting using mat seedling of high seedling density.

Also. Iseki participates to the government's demonstration business for reconstruction of the devastated areas by the Great East Japan Earthquake to restore them as food production areas, "Advanced production areas" with its "variable fertilizing rice transplanter" which is under joint study with the Ishikawa Prefectural Agriculture and Forestry Research Center. The "variable fertilizing rice transplanter" avoids excessive fertilization by control of the amount of applied fertilizer with high precision according to the depth of prepared soil of the paddy soil and its fertility which is detected in sequence while running. We would like to contribute to rice making in future by aiming at further low cost in combined use with the "sparse planting technology".



Axle electrode

sensor

equipment



4) Facility Business Department

We engage in sophisticated facility business like plant factory in proactive interexchange with universities and experiment and research institutions. Specifically, we are promoting a study regarding plant factory of "agricultural crops high-tech production system" with Ehime University.

Together with this university, Iseki participated in "Forefront agriculture industrialization demonstration business" that is aimed at reconstruction of devastated areas by the Great Eastern Japan Earthquake. We are engaged in designing /construction of sunlight use plant factory, production/proofing of growth diagnosis system, and production/ proofing of growth diagnosis robot, etc. that conduct environmental control by smart agriculture.



Plant factory

Growth diagnosis robot

2. Cooperation system with research institutions

We promote joint research and development with universities, testing and research institutions and the like focusing on their superb technologies, research achievements, etc. in order to accomplish speedy as well as efficient R&D.



Joint study with universities and testing & research institutions

3. System for Intellectual Property

Iseki Group has an integrated administration system to conduct administration / guidance / education of intellectual property of the Iseki Group as a whole by our Intellectual Property Control Department.

Intellectual Property Control Department conducts appropriate administration of intellectual property, promoting acquisition of high quality intellectual property rights and effective use of intellectual property rights.

With respect to inventions and ideas, acquisition and management of rights, corporate confidential information, etc, we stipulated their handling in our working regulations, regulations for the handling of inventions created by job assignment, regulations for treatment of trade marks, code of conduct of the Iseki Group, patent business manual, etc., thus we conduct a thorough compliance.

We provide incentives for inventions and creation to the inventors with compensation for transfer of inventions, compensation for implementation, awards and prizes in and outside the company through interpretation and use of these regulations.



We also manage intellectual property in the strictest of manners by numerous regulations and standards from the time of creation of the invention until its renouncement. For instance, in evaluating the value of patents, we created our "Criteria for Evaluation of Patent Rights" which sets forth methods for calculating the price of patent rights. We conduct periodical review of these criteria to ensure that they are in accord with common understanding and practices in the society, taking advantage of it in our patent assets management, patent rights negotiations and so forth.

Further, in order to realize activation of creativeness of the Iseki group as a whole and exert its full technical capacity, we make efforts in personnel training that constitutes their basis, providing intellectual education/creativeness education.

Iseki Group also holds presentation meeting of technical research every year. It was 23rd meeting last year, and it contributes to enhancement of the skill level of the entire Iseki Group by sharing R&D results and mutual close application and education through arguing.

Implementation of Intellectual Property for Each Product (Example)

1. Agricultural Machinery Technology

Hereunder, we would like to explain features and associated technologies regarding tractors, rice transplanters, combine harvesters and others.

1) Tractor We newly developed "GEAS NTA" Series in pursuit of simple, comfortable, high efficiency/high precision as well as safety, that can be operated easily like automobile driving. They are equipped with "D-mode", "Dual clutch transmission", "Green navigation", "No clutch brake stopping" and "New one-touch function selector dial".

D mode When easily operable main shift lever of straight-change type is set to D range in the rear, it is switched to accelerator shift that automatically increase/decrease speed of the main shift in response to pressing



operation on the accelerator pedal, providing driving feeling like .an automatic vehicle.

Dual clutch transmission Two main shift axles equipped with each independent hydraulic clutch (dual clutch) allow completion of shift operation simply by switching the hydraulic clutch, and further, by setting finely pressure control patterns of two clutches, shift shock is alleviated realizing comfortable and high-precision works.



No clutch brake stopping When pressing operation is applied on the brake pedal, speed reduction/stop can be made as the traveling-related clutch inside the transmission case is controlled to low pressure mode. Also, by releasing foot from the brake pedal, it allows smooth starting while clutch pressure of the travelling-related clutch is being controlled in connected mode.

Green navigation Five green marks are indicated on the meter panel by liquid crystal display. Depending on the work load, indicated number of the green mark changes that enables to confirm present working efficiency. Fuel saving and enhanced working efficiency are realized by adjusting the engine rotation speed or the number of shifting stages guided by the number of green marks.

New one-touch function selector dial A convenient function at traveling or tillage that can be selected simply by turning the dial. "Traveling" position for travelling on road,

"tillage" position for tillage work, and "persistence" position to replay the prior-set working condition all together can be selected. At the "persistence" position, various automatic control function and motion sensitivity of the work machine which had been set in the previous work are replayed. Setting of 10 items including back up to elevate rotary automatically when moving backward and horizontal control of rotary can be relayed simultaneously, resulting in enhanced working operability.

Also, GEAS "NT" Series were developed at the same time on the basis of GEAS "NTA" Series, which support low cost agriculture. In spite of their simple composition and low price, they respond to the market demand equipped with fundamental performances such as back up to provide elevation control of the rotary at moving backward or turning, as well as auto-lifting.

We also developed semi-crawler-mode with excellent driving force and enhanced travelling tolerability for both GEAS "NTA" and "NT" Series,

We developed tractor "T. Japan X" Series which are easily handled, low priced, enabling operation more at ease with the mounted engine compatible to the third emission gas control in Japan. They are equipped with "comfortable cabin" and "rear tire zoom tread".

Comfortable cabin By installing air conditioner unit in the rear section of the ceiling, an enhanced front view visibility was realized. With standard equipment of CD radio/air conditioner, operation under comfortable riding quality was enabled, even for long hours work.



Rear-wheel zoom tread Tread adjustment can be made at 5 stages hydraulically according to ridge of the crop. The tread can be quickly adjustable to different furrows for inter-tillage, pest control, etc., exerting power in field control work.



2) Rice transplanter We developed "PQZ3" Series as a further evolved version of the small riding rice transplanter PQZ Series. They are equipped with "Sanae Z turn", "Sanae seedling rail", "Sanae lever" and "delux step".

Sanae Z turn Planting section is elevated automatically by turning operation of the steering wheel, and once the turning is over, the planting lever is set in motion forcibly by electric motor, which conducts lowering of the planting section after turning



and starting of seedling planting automatically, allowing easy turning operation.

Sanae seedling rail By using grips for switching operation that are set in the front and the rear, the condition to have arranged spare seedling tables in two tiers on the right side of the machine body can be changed to a flat seedling rail connecting the seedling tables to the front and rear. It accomplished labor saving of the seedling feeding work providing easy seedling feeding from ridge to the seedling rail for the supporter, and easy feeding of seedling from the seedling rail to the seedling tank by the operator.

Sanae steering wheel When crossing ridges, a light downward pressure is applied in order to prevent the front section from being raised. Also, by installing engine stop switch, stopping operation of the engine can be engaged from the front side of the machine body.

Delux step We made it easier to get on and off at the front side of the machine body by providing non-slip function of non-slippery material with processed rough surface to the front edge part of the step floor.

3) Combine harvester We developed "HC400" as high-powered version of well accepted all-purpose combine harvesters applicable to soybean, buckwheat, wheat and miscellaneous cereals. It is equipped with "air grain" and "roll pipe type concave".

Air grain By conveying harvested crops using wind power, emission without flaw or dirt can be attained. It also prevents residues inside the transfer pipes.

Roll pipe type concave The concave is



composed of rotatable pipes in order to alleviate sticking of stems and agricultural products, and reduce tainted or damaged grains. By the effect of reduced threshing load, working efficiency is improved as well.



4) Drying machine We developed rice hullers of easy operability and high performance "MG43, 53", "MGP53" (roll method) and "MG43, 53" (jet husking method). They are equipped with "Oshirase tread navigation" and "papatto-senbetsu (quick sorting)".

Oshirase-navigation It is composed to be able to switch to starting/circulation/emission just by one lever, and the operating timing of this lever is indicated by blinking of light in response to the condition of the rice huller. It is not required to check the huller while operating, enabling proper lever handling.



Papatto senbetsu (quick sorting) Rice husking friendly to rice can be made through reduced husking frequency by installing sorting net in the route to send back the grain from the sorting board to husking section, that enables an extra sorting.

5) Vegetable growing machinery In regard to the vegetable transplanting machinery, we developed newly Tread 120cm mode "PVH1-120WLLGX" that enabled 2 lane planting in one furrow by back and forth operation, as well as Tread 50cm mode "PVH1-50LGX" to cope wth the ridge width of Aso district of Kumamoto prefecture, following the walking-type semi-automatic vegetable tansplanter PVH1 which realized high efficiency operation.

We also developed walking-type semi-automatic round trip 4 lane planting special transplanter for onions "PVH2-145WZL3HG" for inter-lane distance of 20cm which correspond to the cultivation system in Awaji-shima Island.

In terms of vegetable harvesting machinery, we developed "ridge leveling equipment" for carrot harvester VHC1120. With the disk and dozer installed in front of the crawler which level the ridge filling the ridge furrow in order to prevent the crawler to sink in the furrow making the machine body to heavily incline to the right or left. Plucking and conveying apparatus nips stem and leaf part of carrots firmly, allowing adequate harvesting of carrots.







6) Tiller We developed rotary specialized tillers "KMR400" and "KMR300" equipped with listing plate for rotary specialized tillers which was well reputed with KCR. They are equipped with "rotary up stop" which allows operation at ease without concerning footing when doing turning operation of the tiller as by lifting the handle to elevate the rotary, clutch is cut and rotary stops.

Also, we developed axle tiller "KM27" which can be easily handled by women or aged users by enhanced safeness with sufficient variations. The machine is equipped with "listing plate" specialized for axle tillers, which enables to switch over tilling and listing by simple operation.



2. Product technology related to agricultural machinery

Hereunder, we introduce features of our new products and future commitment regarding rice cooker for business use and agricultural facilities.

- 1) Rice cooker for business use We integrated "flow sensor" that detects water volume to supply to rice washer into the rice washing cooker AR which is well accepted for its air bubble rinsed rice. By this, the rice cooker have two options of water adjustment, namely water adjustment using the flow sensor, and conventional water adjustment of static water type to pull out water according to the water volume after filling the rise washer with water, thus it allows the user to select considering the rice volume and dipping time.
- 2) Agricultural facility We conduct a joint study with Ehime University on an "agricultural product high-tech production system". We established anew "the design engineering course of plant factory" (sponsored course), promoting the establishment of cultivation technology of high-sugar content tomatoes, and a study on an "intelligent plant factory system, including self-running plant nourishing analysis equipment".

3. Overseas product technology

Hereunder, we would like to introduce features of our products introduced in overseas markets and the current situation of development, according to each country.

1) Europe We developed utility tractor "TJA" Series for landscaping market for professionals and agricultural use market. They are equipped with environment friendly emission gas cleaning equipment, high/low shift button which enables quick response to load change, and super full turn which enables sharp turn in turning, etc. Also, we have enriched our product line-up by developing ROPS mode machines at the same time.



2) North America/Oceania We developed utility tractor "MF4600" Series, and we have realized high fundamental performance, operability, reliability coupled with environmental performance by the new emission gas control responsive engine.



3) China We developed the fertilizing machine mode "PZ60-HDRTFE18" for riding rice transplanters. Hand rail was placed along the fertilizer hopper of the fertilizing machine, allowing a safe operation for the assistant who shares the ride to engage in supply work of seedling or fertilizer on the step in the front of the fertilizing machine.

We also developed general-purpose combine harvester "HC758" that realized crop adoptability in the Chinese market and allowed a high speed operation. It is equipped with "Bar drum type treatment trunk", "Triple flow sorting" and "Large capacity grain tank".

Bar tooth type threshing drum By adoption of the threshing drum which has bar tooth, threshing load can be reduced while limiting the grain loss. Also, by making the structure capable of attachment/removal by one unit of multiple bar tooth, it realized simplification of the exchange at abrasion.

Triple flow sorting Three directional blast routs composed by partition plates, which blow in cradle sorting shelves to realize efficient sorting.



Large capacity grain tank By mounting a large capacity 1,200 litters grain tank, it enabled high efficient work with reduced emission frequency. And also, in the rear of the grain tank, an emission auger that simply needs to incline to the right or left is equipped. By this auger, direct emission to the husk trailer up to bagging can be made easily, realizing labor saving.

We also developed a semiautomatic tobacco tranplanter suitable for planting/mulching at the narrow ridges "PVH1-TCE18M" which corresponds to tobacco cultivation in China, the world's biggest producing country of leaf tobacco. Equipped with "ridge guiding roller" and "multi holder", it promotes enhanced ridge follow-up property and prevents raising of multi films by elevating the planting hopper, thus allowing proper seedling transplanting in narrow ridges where multi films have been applied.

- 4) Taiwan We developed high efficiency/high durability tractor "TJV80" which cope with the local environment of the use, equipped with green mode/AT shift, etc. which are well accepted in Japan. In addition, we are engaged in development of high efficiency/high durability large rice transplanters and combine harvesters.
- **5)** Korea We developed riding-type rice transplanter "PZ63" and "PZ83" equipped with advanced Z functions, Sanae Z turn/Sanae Z shift, New Sanae Z rotar which are well reputed in Japan.
- 6) South East Asia We are developing high durability agricultural machinery which are low-priced and suitable for working conditions and field conditions peculiar to each country.



Situation of Intellectual Property

1. Patents Held

1) In Japan

We make application of inventions that are strictly screened by our internal regulations and the evaluation criteria in a proactive manner, trying to acquire and build up effective patent rights, which reached approx. 2,700 patents as of the end of March, 2013.



As of March 31, 2013, the number of patents held for our three major product categories (cultivating machinery, rice transplanters and combine harvesters) as well as vegetable transplanters & harvesters accounted for 88% of the total patents held.



2) Overseas

We are making applications for carefully selected intellectual property to Europe, USA and Asian nations including China. The number of intellectual property rights

held is on the rise every year. In particular, we make aggressive applications of our design and trade marks in the Asian region in order to eliminate imitation and mockery.







2. Patent Assessment Ratio and Applied For

Iseki has maintained high patent assessment ratio every year. And it has been ranked high being top in all industries between 2004 and 2010, the second in 2011 and the first in 2012

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Patent assessment ratio	84.6%	83.7%	90.4%	89.3%	85.8%	88.5%	91.8%	91.8%	94.7%
Rank in all industries	First	Second	First						

Patent assessment ratio = Number of decision to patent grant / (Number of decision to patent grant + Number of decision of refusal + Number of withdrawals or abandonment)

Number of withdrawals or abandonment = The number of applications withdrawn or abandoned after notice on the reason of rejection.

In the agriculture and fishery sector among the sectional list of public patents in Japan, Iseki has been ranked top for 7 consecutive years from 2000 to 2006, followed by the top rank in the "other special machinery sector" for 5 consecutive years from 2007 to 2011 when the sector was reclassified. This means top ranking for 12 consecutive years.

Sector	Agriculture and fisheries						*The	other specia	al machir	nery	
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2010	2011
Rank	First	First	First	First	First	First	First	First	First	First	First

* Since the 2009 edition, the sector classification has been changed, and agriculture and fisheries were included in [the other special machinery sector].

(Patent Administration Annual Report 2002 edition - 2013 edition)

7

Awards and Recognitions

1. History of Awards

Iseki has produced a long list of prize-winning technical experts who have received national decorations, national medals of honor, citations as contributor to scientific technology, citations for inventions, official commendations by the Minister of Education, Culture, Sports, Science and Technology, official commendations by the Agricultural Machinery Academy for their contribution to the development, improvement and commercialization of agricultural machinery technology.

In 1952, Kunisaburo Iseki, founder of Iseki received a national prize for invention from the Japan Institute of Invention and Innovation. In 1993, Iseki was awarded the Chairman's Prize to Commemorate a Century of Agricultural Experimentation and Research (jointly sponsored by the Ministry of Agriculture, Forestry and Fishery and the Association to Commemorate a Century of Agricultural Experimentation and Research) in recognition of our development and diffusion of head-feeding combine harvesters equipped with automatic threshers of which commercialization was achieved by Iseki for the first time in Japan.

In 2008, Iseki received the "Meritorious Award for Intellectual Property" (Award for Excellent Enterprises Active in the Industrial Property Rights System, Commissioner of the Japan Patent Office Award) in recognition of our traditional management of placing importance on intellectual property rights.

Iseki received excellent awards for two consecutive years in FY2010 and 2011 in the R&D/New Technology Division of FOOD ACTION NIPPON AWARDS sponsored by the Ministry of Fishery, Agriculture and Forestry.

2. Awards for Invention

Iseki has received award from the public utilities corporation, the Japan Institute of Invention and Innovation every year, and to date, 196 awards including 18 national awards have been received. The frontier spirit of the founder towards research and development has been succeeded consistently, which created tradition within the Company to create new technology with practical value through intellectual and creative activities.



1) Details of Awards

Number of Award-wining Inventions 196 (As of March 31, 2013)

Contents of Awards

O National Awards for Invention 18					
Special Awards	President's Award of the Japan Institute of Invention and Innovation				
	The Asahi Shimbun Award	1			
Special Awards		2			
Invention Awards					

Regional Awards for Invention 178

Special Awards	Encouragement Award of the Minister of Education, Culture, Sports, Science and Technology (Former Encouragement Award of the Director-General of the Science and Technology Agency)	9		
	Encouragement Award of the Commissioner of the Japan Patent Office	5		
	Award of the Director-General of the Regional Bureau of International Trade and Industry (Award of the Director-General of the Shikoku Regional Bureau of International Trade and Industry)	8		
	Encouragement Award of the President of the Japan Institute of Invention and Innovation	7		
	Encouragement Award of the President of the Japan Patent Attorneys Association	4		
	Total	33		
Award of the President of the Ehime Institute of Invention and Innovation (District Head Award)				
Outstanding Invention Awards etc.				
Invention Encouragement Awards				
Investment Encouragement and Merit Award				

2) Fiscal Year 2012 Shikoku Region Invention Award

Shikoku Bureau of Economy, Trade and Industry Bureau Head Award (1 award)Patent No.3404836Fertilizer air emission system of fertilizing machineInvention Encouragement Prize (3 awards)Patent No.3687350Automatic vehicle speed deceleration of tractorsPatent No.4868132Large capacity resin tank mounting-type combine harvesterRegistration of designs N0.1250992Riding-type seedling transplanter

3. FOOD ACTION NIPPON AWARDS

Iseki Group participates in FOOD ACTION NIPPON Headquarters established in MAFF as the first registrant, contributing to improved food self-sufficiency.

Iseki has received the award for excellence for two years in a row in the R&D/New Technology Division of FOOD ACTION NIPPON AWARD in FY2011 for the development of the first in the industry, 7 row harvesting combine harvester "HJ7120" to follow the "sparse planting rice transplanter" in FY2010, and "First in the Industry! Development of [Far-infrared rays grain drying machine]" won an award in 2012. This is in high appreciation of Iseki's technical capacity, and we would like to continue to support low cost agriculture toward higher food self-sufficiency ratio, exerting this technical competency.









Awarded Fiscal	Name of Awards	Details of Awards/Object
1952	National Awards for Invention. Special Award	Automatic wind power control device of revolving thresher
1954	National Awards for Invention, Invention Award	Automatic rope slant control device of rice huller Banseki
1956	National Awards for Invention, Invention Award	Second processing device of self-feeding thresher
1959	National Awards for Invention, President's Award of the Japan	Feeding device of thresher
	National Awards for Invention Special Award	Rice plant mower with hinding device
	National Awards for Invention, Special Award	Rice break preventive device of self-feeding thresher
1960	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency	Second slot delivery machine to install to thresher
1961	National Awards for Invention, Invention Award	Second slot delivery machine to install to thresher
1962	National Awards for Invention, Invention Award	Rice huller
1963	National Awards for Invention, Invention Award	Suction selection type thresher
1964	National Awards for Invention, Invention Award	Rice huller
1966	National Awards for Invention, Invention Award	Power transmission device of power tiller
1968	National Awards for Invention, Invention Award	Crimp net frame removal device of thresher
	National Awards for Invention, Invention Award	Pressure control grouping device of reaping binder
1969	Regional Awards for Invention, Encouragement Award of the Commissioner of the Japan Patent Office	Reaping thresher
1970	National Awards for Invention, Invention Award	Reaping thresher
	National Awards for Invention, Invention Award	Tilling device of power tiller
1975	Commissioner of the Japan Patent Office	Rice planting device of rice planter
1976	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency,	Rice feeding device of rice planter
1978	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency,	Traveling device of rice planter
4070	National Awards for Invention, Asahi Shinbun Award	Traveling device of rice planter
1979	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency	Grain haulm transfer device of combine harvester
1981	Regional Awards for Invention, Encouragement Award of the Commissioner of the Japan Patent Office	Reaping portion vertical position control device of harvester
1982	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency	Traveling device of rice planter
1983	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency	Planting device of rice planter
1985	National Awards for Invention, Invention Award	Seedling raising method
1993	President's Award of A Century Commemorative Society of Agricultural Testing and Study	Development and diffusion of self-reaping combine harvester
1008	Regional Awards for Invention, Encouragement Award of the Commissioner of the Japan Patent Office	Rice transplanter with fertilizing device
1330	The Japanese Society of Agricultural Machinery, Mori Technical Award	Research concerning development of hydroponic seedling raising and transplanting technology of wet rice
2000	Regional Awards for Invention, Encouragement Award of the Director-General of the Science and Technology Agency	Transmission device of speed-change gear of combine harvester
2002	Regional Awards for Invention, Encouragement Award of the Minister of Education, Culture, Sports, Science and	Transplanter
	Lechnology,	
2003	National Awards for Invention, Invention Award	I ransplanter
2003	Commissioner of the Japan Patent Office	Agricultural work machine
2004	The Japanese Society of Agricultural Machinery, Kansai	Development of air emission system of small size general
	Encouragement Award of the Minister of Education Culture	
2005	Sports, Science and Technology, Development Division, Science and Technology Award	Development of high performance riding type rice transplanter
	The Japanese Society of Agricultural Machinery. Academic	
2006	Award	Research on wind selection of gain by combine harvester
	Intellectual Property Merit Award, Award for Excellent Companies utilizing Industrial Property Rights, Award of the	Patent utilizing excellent company
2008	Regional Awards for Invention Encouragement Award of the Minister of Education, Culture, Sports, Science and Technology.	Speed-change control system of powered vehicle
2010	FOOD ACTION NIPPON Awards 2010, R&D/New technology, Excellent Award	Sparse planting rice transplanter
2014	FOOD ACTION NIPPON Awards 2010, R&D/New	Development of industry's first 7 lane reaping combine
2011	technology, Excellent Award Regional Awards for Invention Shikoku Bureau of Economy	harvester "HJ7120"
2012	Trade and Industry Bureau Head Award	Fertilizer air emission system fertilizing machine
-	technology, Excellent Award	drying machine]

4. History of Main Awards for R&D



Information on Legal Actions Related to Intellectual Property

There is no suit at issue related to intellectual property rights which could affect our management in or outside the country. In promoting our business and R&D, we will implement intellectual property strategies steadily with the greatest of care.



Corporate Data

Company Name	ISEKI & CO., LTD.
Head Office	700 Umaki-cho, Matsuyama, Ehime, Japan
Tokyo Headquarters	3-14, Nishi-Nippori 5-chome, Arakawa-ku, Tokyo, Japan
Foundation	August 1926
Paid-in Capital	23,344 million yen (as of March 31,2013)
Employees	Consolidated: 6,325 (as of March 31, 2013)
Principal Business	ISEKI'S principal business is the manufacture and sale of following products
	Cultivating machinery Tractors, Tillers, Cultivators, Mowers
	Planting machinery Rice transplanters, Vegetable transplanters
	Harvesting machinery Combine harvesters, Binders, Harvesters, Vegetable harvesters
	Processing machinery Rice hullers, Dryers, Rice polishers, Rice Graders, Vegetable Processing Machinery
	Others Farming implements, Repair parts, Agricultural facilities

Trend of Business Performance

■ Net Sales (billion yen)



Operating Income (billion yen)





For further information, please use the following contact points.

Intellectual Property Control Department Development & Production Division ISEKI & CO., LTD. 1 Yakura, Tobe-cho, Iyo-gun, Ehime, Japan 791-2193 Telephone: (In Japan). (089)956-9810 (From outside Japan) +81-89-956-9810

> Facsimile: (In Japan) (089)956-9818 (From outside Japan) +81-89-956-9818

URL: http://www.iseki.co.jp/ E-mail: <u>pat-matsuyama@iseki.co.jp</u>