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CROP INSURANCE IN JAPAN

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INTRODUCTION

Crop insurance is primarily a technique of protecting farmers against the element of chance in crop production and of stabilizing farm income. The factors which introduce uncertainty into crop production fall under two broad categories, *viz.*, meteorological and biological. Meteorological factors include the following: excess or deficiency of rainfall and moisture, drought, flood and inundation, hail, tornado, and windstorm. Biological factors include diseases (*e.g.*, blight smut, rust, etc.) and insects (*e.g.*, grasshoppers, beetles, locusts, etc.) which are injurious to plants. Uncertain changes in weather and biological factors give rise to uncertainty of crop yield and hence of farm income. Crop insurance eliminates this chance element by assuring farmers that the loss suffered by them due to any unforeseen changes in nature would be compensated fully or in part. It thus brings security to them and stability in their income.

Insurance of growing crops may be either specific-risk insurance or all-risk insurance. A specific-risk policy offers protection against a single weather hazard like cold, flood, frost, hail, rain, snow, temperature, or windstorm. It is based on the knowledge that there is a definite correlation between weather phenomena and crop yields. All-risk insurance guarantees protection against practically all hazards affecting crop production. From the point of view of the comprehensiveness of protection offered this is the most important type of crop insurance. Some of the difficulties involved in writing all-risk crop insurance are mainly due to the fact that such insurance covers a very wide range of risks.

Interest in crop insurance may be said to have originated first in Germany. The theoretical foundations of various forms of crop insurance were laid down by writers like J. H. G. von Justi (1780), Paul Mayet (1888), Adolf Buchenburger (1896) and Karl Kautsky (1899).[1] Their writings influenced policy making to such an extent that many European countries thought it worthwhile to experiment with different types of specific-risk crop insurance. Thus, for instance, hail insurance was first organized in Germany in 1791 by the Hail Damage Society of Braunschweig. Later this form of crop insurance spread to other countries in Europe and America.[2] Towards the close of the 19th century hail insurance had been evolved as one of the best organized forms of crop insurance. Other forms of specific-risk insurance also made considerable headway in Europe and the United States. However, insurance of crops against *all* hazards did not develop at the same pace as other types of crop insurance although the principles of this type of insurance had been well discussed by both Justi and Mayet. In 1899 an attempt was made in the United States to write all-risk crop insurance

1. Those who can read Japanese will find a discussion of the ideas of these writers in Toyoji Yamanouchi: *Nogyo Hoken no Keizaiteki Kenkyu*, the National Research Institute of Agriculture, Tokyo, 1957, pp. 9-15.

2. The French *Societé d'assurance reciproques* (Tolouse) was established in 1797 with a view to offer hail insurance to farmers. The *Bernische Hagel versicherungsgesellschaft* of Switzerland was established in 1825. In Italy the *Assicurasioni Generali* was founded in 1840. The Mutual Hail Insurance Company of Milwaukee (United States) was established in 1870.

but the results were disappointing.[3] Since then it has been tried in several other countries with varying degrees of success.[4] At present comprehensive insurance against growing crops is offered in the United States, Soviet Union and Japan. All-risk crop insurance in the United States is voluntary and is offered by the Federal Crop Insurance Corporation. It is compulsory in the Soviet Union and Japan and is offered by the State.[5]

CROP INSURANCE IN JAPAN BEFORE WORLD WAR II

Crop insurance on a scientific basis was first recommended to the Meiji Government of Japan by the German specialist, Paul Mayet.[6] He suggested a comprehensive crop insurance scheme as a relief measure to protect the poverty-stricken farmers against the ravages of nature. The recommendations made by Mayet to introduce crop insurance did not, however, bear fruit for a long time.[7] Nearly half a century passed before any active consideration was given to crop insurance by the Japanese government. The first practical step towards the establishment of crop insurance was taken in 1928 when the government appointed a special officer in the Ministry of Agriculture and Forestry and sanctioned an annual grant of 20,000 yen to work out the details of a crop insurance plan. At the same time specialists were deputed to collect and organize data on physical damage of crops and to lay down the basic principles to be followed in loss adjustment. Meanwhile the Ministry of Agriculture and Forestry was conducting surveys in rural areas to build up insurance statistics necessary for the establishment of crop insurance.[8] As a result of the investigations conducted by the Ministry of Agriculture and Forestry a mature plan of crop insurance was ready by 1931. This was placed before a committee of experts for examination and approval. At the same time a bill on crop insurance was introduced in the Diet but it failed to obtain the sanction of the House owing to some objections put forth by the Ministry of Finance. Further progress in this direction was marred by the colossal military budget of the time. Following the China Incident, however, another effort was made by a committee of 16 members headed by Kuniyoshi Murakami to present a crop insurance bill before the national Diet (1938). The bill was approved by the House and became Crop Insurance Law (Public Law No. 68). The programme was put into operation from the 1939 crop year in accordance

3. All-risk crop insurance in the U.S.A. was first offered by the Realty Guaranty Company of Minneapolis in 1899 under the Optional Sale Contract. In 1917 two more attempts were made to issue all-risk policies in Montana and Pennsylvania. In 1920 the Hartford Insurance Company tried to write all-risk insurance extensively.

4. In his report to the League of Nations on the Systems of Agricultural Credit and Insurance Louis M. Tardy refers to the existence of either voluntary or compulsory insurance of this type in the inter-war period in the following countries: Argentine Republic, Bulgaria, Columbia, Finland, France, Greece, Latvia, Poland, Switzerland and Yugoslavia.

5. In Japan, insurance of paddy, *mugi* (which includes wheat, barley and naked barley) and cocoons is compulsory. This compulsory insurance is combined with voluntary insurance of all other crops.

6. Paul Mayet: Agricultural Insurance, trans. by the Rev. Arthur Lloyd (London, Swan Sonnenschein, 1893). In this work Mayet recommended a combination of rural credit, rural savings and rural insurance.

7. An early attempt made in 1922 to introduce a crop insurance bill in the Diet had failed. This bill, under the title of "Tenancy Insurance and Tenancy Account," was presented before the Diet by Uichiro Saito and 4 others. It envisaged compulsory insurance under the aegis of the State.

8. This survey brought into light the existence of insurance societies which were offering different types of crop insurance. These were mainly found in Saitama, Tokushima and Mie prefectures.

with the Agricultural Insurance Law Enforcement Order (Order No. 782 of December 4, 1938).

The crop insurance programme initiated in 1939 had a two-fold objective in view, *viz*: (1) to enhance the organizing ability of farmers for mutual help and to withstand the impact of yield fluctuations, and (ii) to protect landowners against the loss of rent due to crop failures. In other words, what was aimed at was the establishment of a system of yield-cum-rent insurance.[9] Since landowners were not direct cultivators of land, insurance protection offered to cover their rent receipts was in effect a kind of credit insurance.

Though organized by the State, the crop insurance programme did not receive any special attention for the first two years of its existence. The programme was not subsidized by the government and participation was voluntary. With the outbreak of the Pacific War, the government sought to use crop insurance as an incentive to encourage farmers to step up domestic food production as external sources were cut off. With this end in view the programme was revised substantially and certain new provisions were introduced. Participation in crop insurance was declared compulsory and a beginning was made by the State to subsidize pure premium assessed on farmers. A sliding scale of subsidy payment was adopted. The amount of coverage per *tan* (0.245 acre) was increased for all crops (Table I). Coverage on land rent was left unaltered in order to reduce the protection given to landowners *vis-a-vis* farmers.

TABLE I—COVERAGE PER TAN IN THE PRE-WAR CROP INSURANCE PROGRAMME

(Unit: *yen*)

Crop	Before revision	After revision
Paddy		
Owner-cultivated land	20	45
Tenanted land	10	35
Rentals	10	10
Mugi (Wheat, barley and naked barley)	10	25
Mulberry	10	30

Crop insurance administration at the *Gun* (county) level was placed in the hands of Agricultural Insurance Associations. The Agricultural Insurance Associations in each prefecture federated themselves to form Prefectural Federation of Agricultural Insurance Associations. Each Prefectural Federation extended reinsurance facilities to all Insurance Associations within its jurisdiction. The Prefectural Federations were in turn granted reinsurance facilities by the government.

Each village had its Agricultural Society through which farmers participated in the crop insurance programme. Agricultural societies were directly offered insurance facilities by the (*Gun*) Insurance Association. Every Insurance Association reinsured 70 per cent of its liabilities with the concerned Prefectural Federation. Government reinsurance at the top level covered all extraordinary liabilities of the Prefectural Federations.

9. Fumio Takagi, *Nogyo to Zaisei*, Zaimu Shuppan, Tokyo, 1954, p. 76.

The pre-war programme covered three important crops, *viz.*, paddy, *mugi* and mulberry leaves. Practically every hazard was covered excepting plant diseases, pests and insects. Compensation was payable only when loss exceeded 30 per cent of the average yield. Premia were calculated on the basis of the physical loss of crops for a 20-year period beginning from 1920. Premium rates were revised quinquennially. In order to meet administrative expenses the net premium was loaded to the extent of 10 *sen* (1/100 part of a *yen*) per *tan*. Premia were subsidized by the government as shown in Table II.

TABLE II—EXTENT OF GOVERNMENT SUBSIDY ON PURE PREMIUM UNDER THE PRE-WAR CROP INSURANCE PROGRAMME

(Unit: *yen*)

Crop	Total Premium	Farmer's Share	Government's Share (Subsidy)
Paddy	1.23	.62	.61
Mugi	.23	.10	.13
Mulberry	.50	.26	.8*

Note: All figures are national averages.
*The rest was paid by the Japan Silk Control Company.

Throughout the initial stage (1939-46) crop insurance experience in the country was quite adverse. This was due to extensive crop failures in different parts of the country during this period[10] and the unreliability of statistics of physical loss which were employed in computing premium rates.

CROP INSURANCE IN JAPAN AFTER WORLD WAR II

The crop insurance scheme was greatly revised after the war so as to adjust it to the new agricultural conditions created by the land reform programme. It was also combined with Livestock Insurance under the Compensation Against Agricultural Loss Law of 1947. In addition to stabilizing farm income, the immediate objective of this revision was to prevent the reversion of the newly created owner-cultivators into the position of tenants due to indebtedness. Crop insurance in post-war Japan has been evolved as a vital aspect of agricultural planning and development.

Insurance protection is offered against a long list of natural hazards such as cold, drought, earthquake, flood, snow, volcanic eruptions, wind, and against damages due to birds, beasts, insects and pests, and plant diseases. All major crops are covered under the insurance programme. But insurance is compulsory for only 4 crops, *viz.*, paddy, upland rice, *mugi* and cocoons.

Calculation of the crop insurance premium is based on the damage rates available for a definite period in the past (20 years in the current programme).

10. For instance, there was an unprecedented drought outbreak in western Japan in 1941. In 1942 all parts of the country were subject to damage due to windstorm and flood. In 1943 there was a recurrence of these hazards. In 1944 there was again an outbreak of drought. In 1945 extensive damage was done to rice crop by windstorm and flood. In the same year some parts of the country were in the grip of drought. In 1946 western Japan was subject to severe damage due to windstorm and flood. *Ibid.*, p. 84.

The damage rates are weighted and adjusted appropriately before being used in acturial calculations. The damage rates are classified into ordinary, extra-ordinary and super-extra-ordinary rates corresponding to normal, abnormal and super-abnormal losses. These are used in evolving three different classes of premia. The standard premium rate applicable to each prefecture is determined by the Ministry of Agriculture and Forestry. The premia within each prefecture are classified into several rates (usually ranging between 4—12) corresponding to the number of risk-groups. But the rates are not classified at the individual level within a risk-group.[11] That is, the premium rate is uniform for all participants within a local insurance association (whose activities may cover one or more villages).[12]

Prior to 1958 insurance coverage was limited to 50 per cent of the normal yield and maximum protection was allowed when there was a complete loss of harvest. For partial losses compensation was limited to a certain percentage of the maximum coverage (see Table III). In January, 1958 coverage was raised from 50 per cent to 70 per cent of the average yield. Since then provision has also been made to indemnify all losses below the insured level. However, the first 20 per cent of the loss is excluded from compensation.

TABLE III—SCHEDULE OF INDEMNITY PAYMENTS

Percentage of loss	Indemnity payable as per cent of insurance money	Effective protection or actual indemnity (50 per cent of normal yield)
Less than 30 per cent	nil	nil
30-40 per cent	10.0	5.0
40-50 ,,	25.0	12.5
50-60 ,,	40.0	20.0
60-70 ,,	55.0	27.5
70-80 ,,	70.0	35.0
80-90 ,,	85.0	42.5
90-100 ,,	100.0	50.0
Germination, transplantation and production of crops or silk-worm eggs becoming impossible	50.0	25.0

Source: Ministry of Agriculture and Forestry, Insurance Section, *Nogyo Saigai Hosho Jisseki Hyo*, Tokyo, 1956.

A marked feature of the current all-risk crop insurance programme in Japan is the element of government subsidy.[13] Outside of the Soviet Union, this is a

11. There is a technical difficulty in classifying premia at the individual level. The peculiarities of paddy cultivation in fields divided into tiny units and scattered over a wide area create differences in the degree of risk to which each unit is exposed. This makes it impossible to collect objective data on yield variability on each tiny unit. Hence a single rate is applied for a whole village or a group of villages irrespective of differences in individual risks.

12. Incidentally, it may be noted here that at one time there were proposals even in the United States to have uniform premium rates for a whole country, township or estate. These proposals were, however, ruled out.

13. In contrast with this, the Federal Crop Insurance Programme of the United States is not subsidized by the government in any manner. Formerly the federal government used to pay all administrative expenses of the programme and farmers were charged only net premium. At present, however, even administrative expenses are shared between the insured farmer and the government.

unique feature in any crop insurance programme. State subsidy of premium amounted to 43 per cent of the total premia payable by farmers in the past. In recent years it has risen to around 75 per cent (Table IV). The Japanese government is subsidizing the crop insurance programme in order (i) to encourage farmers to keep some marginal lands under cultivation, and (ii) to place crop insurance within the paying capacity of even poor farmers.[14]

TABLE IV—SUBSIDIZATION OF CROP INSURANCE PREMIUM IN JAPAN

(*yen* in '000 millions)

Year	Total Premia	Government Subsidy
1947	12·6	5·4
1948	19·4	8·5
1949	49·0	21·4
1950	55·2	23·9
1951	89·4	39·3
1952	113·6	59·0
1953	132·1	76·8
1954	138·0	81·4
1955	141·2	83·2

Source: Ministry of Agriculture and Forestry, Insurance Section, *Nogyo Saigai Hosho Seido no Genjo to Mondaiten*, Tokyo, 1956.

Another important feature of crop insurance in Japan is its compulsory nature. Insurance of major crops in the country has been made compulsory because of the need to eliminate the scope for adverse selection (over time and space) and to obtain the widest possible distribution of risks.

Crop insurance in Japan has been in force for over 20 years. Experience during this period has been, with few exceptions, quite adverse as would be evident from Table V. *Inter alia*, this is attributable to: (i) the tendency towards the over-estimation of loss, (ii) indemnity payment for uninsured losses, (iii) the use of unsatisfactory and inaccurate statistical data (particularly in regard to pest and insect damage),[15] and (iv) the use of improper normal yields for meausring losses. In recent years, however, steps have been taken to rationalize the whole programme and to improve the loss experience. Efforts are being made to improve the operating methods and to eliminate too many small loss payments.

Since 1948 crop insurance has been integrated with short-term agricultural credit through the Agricultural Bill System. Under this system any farmer who has insured his crops can get credit from the local co-operative on the basis of the crop insurance policy. Each farmer can borrow upto the maximum insurance

14. It is pertinent to note here that by subsidizing crop insurance premium, risks inherent in crop production (and which primarily affect farmers) are distributed over all the tax-payers in the country. Since it is the tax-payers who ultimately bear the burden of the government subsidy on mutual relief insurance, they indirectly assume a part of the risk of the farming community.

15. Because of the use of inaccurate statistics the calculated premia were below the damage rates and hence heavy loss payments resulted. As Goodwin and Kunimi have suggested, this point highlights the need to test carefully actuarial data with actual field experience before building a system of crop insurance on such statistics. D. C. Goodwin and S. Kunimi: Japan's Agricultural Insurance System, GHQ, NRS, Preliminary Study No. 72, Tokyo, 1950, p. 14.

TABLE V—CROP INSURANCE EXPERIENCE IN JAPAN, 1939-56

(Figures represent percentages of indemnity paid out to total premia collected)

Year	Loss Ratio for Insured Crops				
	Paddy	*Mugi*	Sericulture	Upland rice	Land rent
1939	1,185	—	267	—	1,065
1940	464	284	453	—	409
1941	289	66	987	—	305
1942	118	69	296	—	106
1943	99	620	45	—	92
1944	249	81	20	—	222
1945	280	231	125	—	263
1946	53	539	59	—	44
1947	147	126	226	—	20
1948	123	657	75	23	—
1949	129	521	102	141	—
1950	136	559	74	25	—
1951	140	130	74	154	—
1952	74	79	94	25	—
1953	263	253	279	93	—
1954	129	61	158	99	—
1955	12	93	113	56	—
1956	89	106	—	—	—

Note: In 1947 rent insurance was abolished and in 1948 upland rice was included in the list of crops falling under compulsory insurance.

money specified in the policy. If the borrower's repayment capacity is weakened by a crop failure, insurance benefit which falls due on the insurance policy is automatically transferred to the creditor institution.

INSURANCE ORGANIZATION AND ADMINISTRATION

The current crop insurance programme is officially known as the 'Mutual Relief System' because it combines at different levels the principles of mutual relief and scientific insurance. At the primary (or village) level the principles of mutual relief are applied to all transactions between the village insurance association and the insured farmers. The village insurance association which is called the Agricultural Mutual Relief Association is organized by farmers themselves for mutual help and assistance. The members of the association are the insurers as well as the insureds.

Both coverage and premium are uniform for all members who participate in the insurance activities of the village insurance association. Since the premium rate is uniform for all, both high-risk and low-risk farmers would have identical premia despite the differences in their individual risks. Put in a different way, the loss suffered by a few is equally shared by the majority who escape loss.

The Agricultural Mutual Relief Association is responsible to pay only 10 per cent of the total mutual relief indemnity whenever there is a crop failure. Hence it has a right to keep only 10 per cent of the mutual relief premium collected

from the insured farmers. The rest is transferred to the concerned prefectural federation in the form of crop insurance premium. If loss in any crop year exceeds the premium reserves held by the village insurance association, it can freely scale down the benefits payable to insured farmers. Payment of loss on a *pro-rata* basis is peculiar to only mutual relief and is seldom found in insurance.

At the district (prefecture) level, insurance principles are applied to transactions between the local insurance associations and the concerned prefectural federation. All village insurance associations in a prefecture federate themselves to form the Prefectural Federation of Agricultural Mutual Relief Associations. There are 46 prefectural federations or one in each prefecture. Each Prefectural Federation extends insurance facilities to its constituent members. The village insurance associations transfer 90 per cent of the mutual relief premium they collect from farmers to the Prefectural Federations. What distinguishes this stage from the earlier one (i.e., mutual relief) is that there is no single uniform premium rate and losses cannot be paid on a *pro-rata* basis. Within each prefecture premia are classified into a number of rates corresponding to the number of risk-groups in it. If loss payments exceed the premia collected, the Prefectural Federations cannot scale down insurance benefit. The gap is covered by borrowings from the Agricultural Mutual Relief Fund which was set up in 1952 solely for the pupose of helping the Prefectural Federations.

At the national level reinsurance principles are applied to transactions between the Prefectural Federations and the Government Reinsurance Special Account. The Prefectural Federations transfer to the Special Account a part of the total premia which they collect from the local insurance associations. All losses, whether big or small, are ultimately paid by the Government Reinsurance Special Account. As in the previous stage, there is no provision for the payment of loss on a p*ro-rata* basis. Therefore, when there is a gap between the reinsurance premia and the reinsurance indemnity it is covered by a transfer of funds from the General Account of the Ministry of Agriculture and Forestry. Whenever the reinsurance premia exceed the reinsurance indemnity the surplus is transferred to the General Account.

Thus, through a three-tier organization of the insurance system a nation-wide distribution of risks is obtained. Risks within a village are mutually pooled by farmers through their mutual relationship. Risk distribution over a prefecture is obtained through the insurance relation that exists between the Prefectural Federations and their constituent members. A nation-wide distribution of risks is obtained through the reinsurance relation existing between the prefectural federations and the Reinsurance Special Account. As Yamanouchi has suggested, the existence together of the principles of mutual relief, insurance and reinsurance represents the structural uniqueness of the Japanese crop insurance system.[16]

The point of contact between farmers and the crop insurance programme is the village Agricultural Mutual Relief Association specially organized for crop and livestock insurance administration. Every village (as well as city or town) has its own insurance association. Membership of the insurance association is compulsory for those cultivating paddy, upland rice, *mugi* and for those raising

16. Yamanouchi, *Op. cit.*, p. 143.

silkworms.[17] Besides administering compulsory crop and livestock insurance, the local insurance association also offers voluntary insurance of crops and livestock that are not included under compulsory insurance. The administrative expenses of the local insurance associations are borne by the government and farmers. Around 60 per cent of the administrative expenses are paid by the government while the rest is borne by the farmers themselves.

Insurance administration in each prefecture is vested in the prefectural federation of mutual relief associations. Crop insurance at the national level is administered by the Government through the Reinsurance Special Account. The Insurance Section of the Ministry of Agriculture and Forestry exercises general supervision over crop and livestock insurance in the country.

CONCLUSION

Over the past 20 years of its existence crop insurance in Japan has enabled farmers to pursue their activities unhindered by the fear of loss of harvest due to weather and biological factors. The assistance offered under the current programme, though limited, has proved of great value to farmers in years of adverse crop yields. The reliance of the present system on government subsidy and compulsory participation of all farmers in it underline the fact that crop insurance has been definitely shaped as one of the basic policies of the government towards agriculture. In recent years government's budgetary allocation for crop and livestock insurance has greatly increased.

The Japanese crop insurance experience serves as a beacon light to many Asian countries which are now engaged in modernizing agriculture. Many features of the Japanese crop insurance system could be adopted by these countries with modifications to suit local conditions. Particularly to us in India the Japanese experience has some significant lessons in regard to the role of crop insurance in the planned development of agriculture. Compulsion, subsidization and the integration of crop insurance with rural credit which characterize the Japanese crop insurance programme are features which could be incorporated in a crop insurance system under Indian conditions.

17. This has been laid down in the Crop Insurance Law of the country: (*Kaisei*) *Nogyo Saigai Hosho Seido Kankeri Hoki*, Tokyo, 1957, Ch. II, Article 15(1) and 16(1).

APPENDIX

AREA INSURED AND ITS BREAKDOWN ACCORDING TO CROPS

(unit: *cho* = 2·45 acres)

Year	Area insured			
	Paddy	Upland Rice	*Mugi*	Total
1950	2,698,468	73,696	1,473,041	4,245,205
1951	2,695,630	75,830	1,410,425	4,181,885
1952	2,693,701	71,361	1,289,520	4,054,582
1953	2,702,770	74,196	1,234,983	4,011,949
1954	2,720,126	83,241	1,262,204	4,045,571
1955	2,732,937	79,050	1,224,761	4,036,768
1956	2,735,644	80,841	1,162,331	3,978,816
1957	2,736,990	71,279	1,068,517	3,876,786
1958	2,736,653	85,722	1,032,845	3,855,220

AMOUNT OF PREMIA RECEIVED

(for Paddy, Upland Rice and *Mugi*

(unit: million *yen*)

Year	Mutual relief premium (A)	Insurance premium (B)	Reinsurance premium (C)	Total
1950	5,289	4,760	2,563	12,612
1951	8,273	7,466	4,114	19,853
1952	10,566	9,509	5,879	25,954
1953	12,365	11,129	6,328	29,822
1954	12,845	11,561	6,571	30,977
1955	13,062	11,755	6,702	31,519
1956	12,932	11,639	6,638	31,209
1957	12,858	11,572	6,634	31,064
1958	11,502	11,352	5,784	28,638

(A) received by the village Agricultural Mutual Relief Associations, (B) received by the Prefectural Federations of Agricultural Mutual Relief Associations, (C) received by the Government Reinsurance Special Account.

QUANTITY INSURED (COCOON)

(unit: gramme)

Year	Quantity insured
1950	23,654,271
1951	26,198,295
1952	27,842,176
1953	32,630,029
1954	33,274,766
1955	39,835,421
1956	44,060,331
1957	43,535,742

AMOUNT OF PREMIUM RECEIVED (for Cocoon)

(unit: million *yen*)

Year	Mutual relief premium	Insurance and Reinsurance premium	Total
1950	233	210	443
1951	654	588	1,242
1952	774	697	1,471
1953	897	807	1,704
1954	954	858	1,812
1955	1,059	953	2,012
1956	1,081	923	2,004
1957	1,017	915	1,932
1958	1,394	1,255	2,649